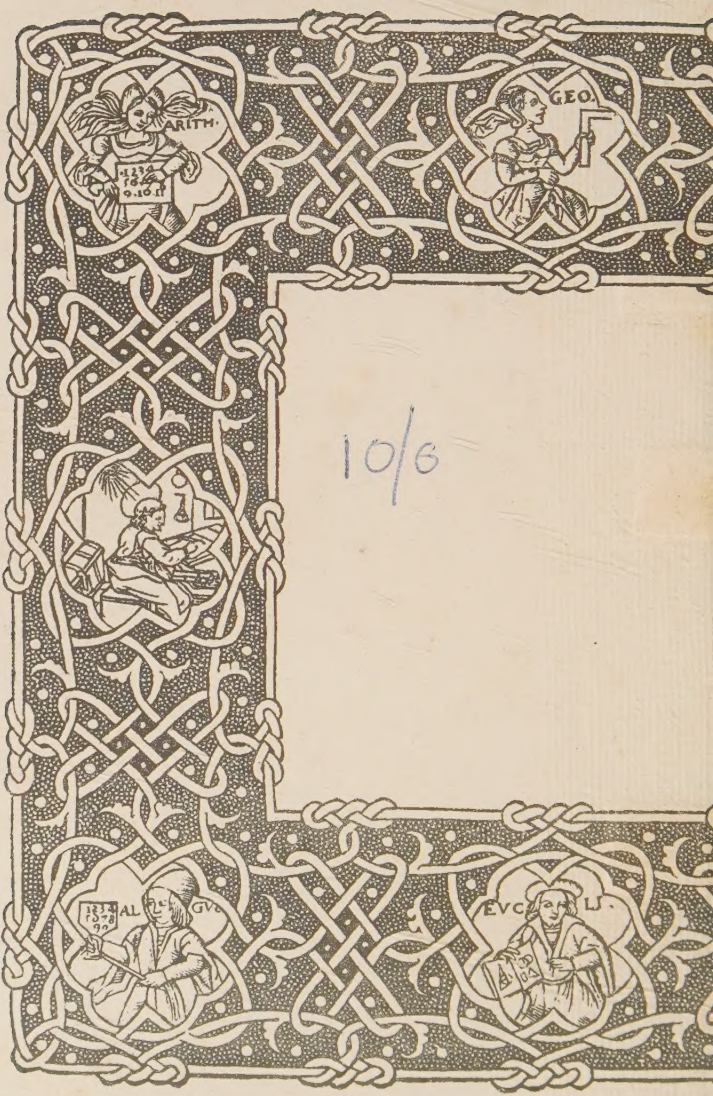
EPISODES FROM FARTHEST NORTH

FRIDTJOF NANSEN



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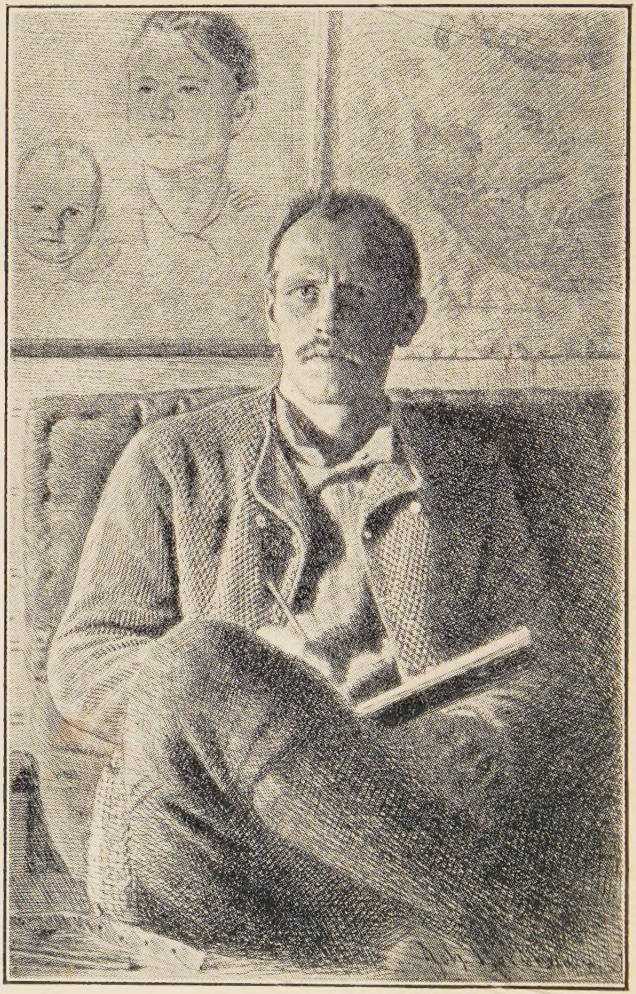
FOR THE CLASS-ROOM AND
SILENT READING

EPISODES FROM FARTHEST NORTH



FRIDTJOF NANSEN

EPISODES FROM FARTHEST NORTH

By

FRIDTJOF NANSEN

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FOREWORD

FRIDTJOF NANSEN, with twelve gallant companions, set out to do a man's work in the Frozen North, and none can read his account of the expedition without feeling that he accomplished his task like a gentleman. His famous ship, the *Fram*, sailed from Norway in June 1893; her explorers did not, it is true, reach the Pole, but, with one companion, Nansen, sledging for fifteen months over the ice, approached nearer to it than any of his predecessors, and both ship and men returned safely to their homeland in August 1896.

The expedition was remarkable not only for the splendid organization that carried it through without loss or disaster, but for the idea that inspired it. Some drifting wreckage suggested to Nansen's quick mind that if he could lay a suitably constructed ship in the floes it would drift in the ice near to the Pole. This view found little support among experienced explorers, but in due course Nansen triumphantly vindicated his theory. His account of the voyage is a classic of Arctic exploration, and in abridging it the editor has aimed to present Nansen's narrative in his own words, so that it should run on without the reader losing anything essential to an understanding and appreciation of what was accomplished. For the adventure-loving boy there are exciting stories of exploits with bears, of hairbreadth

escapes, of heroic endurance of difficulties that only men of unconquerable heart could face. Many more such stories are to be found in the original book, and the young reader would do well to be content with nothing less than all.

This abridged edition is published by arrangement with Messrs Constable and Co., Ltd.

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I
THE START

So travel I north to the gloomy abode
That the sun never shines on—
There is no day.

It was Midsummer Day [1893]. A dull, gloomy day; and with it came the inevitable leave-taking. The door closed behind me. For the last time I left my home, and went alone down the garden to the beach where the *Fram's* little petroleum launch pitilessly awaited me. Behind me lay all I held dear in life. And what before me? How many years would pass ere I should see it all again? What would I not have given at that moment to be able to turn back; but up at the window little Liv was sitting clapping her hands. Happy child, little do you know what life is—how strangely mingled and how full of change. Like an arrow the little boat sped over Lysaker Bay, bearing me on the first stage of a journey on which life itself, if not more, was staked.

We bore along the coast in good weather, past Christiansand. The next evening, June 27th, we were off the Naze. I sat up and chatted with Scott-Hansen till late in the night. He acted as captain on the trip from Christiania to Trondhjem, where Sverdrup was to join, after having accompanied his family to Steenkiær. As we sat there in the chart-house and let the hours slip by while we pushed on in the ever-increasing

swell, all at once a sea burst open the door and poured in. We rushed out on deck. The ship rolled like a log, the seas broke in over the rails on both sides, and one by one up came all the crew. It was an anxious hour. Sea-sick, I stood on the bridge, occupying myself in alternately making libations to Neptune and trembling for the safety of the boats and the men, who were trying to make snug what they could forward on deck. I often saw only a hotch-potch of sea, drifting planks, arms, legs, and empty barrels. Now a green sea poured over us and knocked a man off his legs so that the water deluged him; now I saw the lads jumping over hurtling spars and barrels, so as not to get their feet crushed between them. There was not a dry thread on them.

So we went on our way, mostly in fair weather, occasionally in fog and rain, through sounds and between islands, northward along the coast of Norway. A glorious land—I wonder if another fairway like this is to be found the whole world over? You may shrug your shoulders as much as you like at the beauties of nature, but it is a fine thing for a people to have a fair land, be it never so poor. Never did this seem clearer to me than now when I was leaving it.

On July 12th we arrived at Tromsö, where we were to take in coal and other things, such as reindeer cloaks, 'komager' (a sort of Lapp mocassin), Finn shoes, 'senne' grass, dried reindeer flesh, etc., etc., all of which had been procured by that indefatigable friend of the expedition, Advocate Mack. Tromsö gave us a cold reception—a north-westerly gale, with driving

snow and sleet. Mountains, plains, and house-roofs were all covered with snow down to the water's edge. It was the very bitterest July day I ever experienced. The people there said they could not remember such a July.

After a stay of two days we again set out. On the night of the 16th, east of the North Cape or Magerö, we met with such a nasty sea, and shipped so much water on deck, that we put into Kjöllefjord to adjust our cargo better by shifting the coal and making a few other changes. At ten o'clock in the evening we weighed anchor and reached Vardö next evening, where we met with a magnificent reception. There was a band of music on the pier, the fjord teemed with boats, flags waved on every hand, and salutes were fired. The people had been waiting for us ever since the previous evening, we were told—some of them, indeed, coming from Vadsö—and they had seized the opportunity to get up a subscription to provide a big drum for the town band, the "North Pole." And here we were entertained to a sumptuous banquet, with speeches and champagne flowing in streams, ere we bade Norway our last farewell.

II

FAREWELL TO NORWAY

I FELT in a strange mood as I sat up the last night writing letters and telegrams. We had bidden farewell to our excellent pilot, Johan Hågensen, who had piloted us from Bergen, and now we were only the thirteen members of the expedition, together with my secretary, Christofersen, who had accompanied us so far, and was to go on with us as far as Yugor Strait. Everything was so calm and still, save for the scraping of the pen that was sending off a farewell to friends at home.

All the men were asleep below.

The last telegram was written, and I sent my secretary ashore with it. It was three o'clock in the morning when he returned, and I called Sverdrup up and one or two others. We weighed anchor, and stood out of the harbour in the silence of the morning. The town still lay wrapped in sleep, everything looked so peaceful and lovely all around, with the exception of a little stir of awakening toil on board one single steamer in the harbour. A sleepy fisherman stuck his head up out of the half-deck of his ten-oared boat, and stared at us as we steamed past the breakwater; and on the revenue cutter outside there was a man fishing in that early morning light.

This last impression of Norway was just the right one

for us to carry away with us. Such beneficent peace and calm; such a rest for the thoughts; no hubbub and turmoil of people with their hurrahs and salutes. The masts in the harbour, the house-roofs and chimneys, stood out against the cool morning sky. Just then the sun broke through the mist, and smiled over the shore —rugged, bare, and weatherworn in the hazy morning, but still lovely—dotted here and there with tiny houses and boats, and all Norway lay behind it. . . .

But a fog soon came on, and obscured everything.

And through fog, nothing but fog, we steamed away for four days without stopping, until, when I came on deck on the morning of the 25th of July, behold clear weather! The sun was shining in a cloudless sky, the bright blue sea was heaving with a gentle swell. Again it was good to be a living being, and to drink in the peacefulness of the sea in long draughts. Toward noon we sighted Goose Land on Novaya Zemlya, and stood in toward it. Guns and cartridges were got ready, and we looked forward with joyful anticipation to roast goose and other game; but we had gone but a short distance when the grey, woolly fog from the south-east came up and enveloped us. Again we were shut off from the world around us. It was scarcely prudent to make for land, so we set our course eastward toward Yugor Strait; but a head wind soon compelled us to beat up under steam and sail, which we went on doing for a couple of days, plunged in a world of fog. Ugh! that endless, stubborn fog of the Arctic Sea!

On the evening of July 27th, while still fogbound, we quite unexpectedly met with ice; a mere strip, indeed,

which we easily passed through, but it boded ill. In the night we met with more—a broader strip this time, which also we passed through. But next morning I was called up with the information that there was thick, old ice ahead. Well, if ice difficulties were to begin so soon it would be a bad look-out indeed. Such are the chill surprises that the Arctic Sea has more than enough of. I dressed and was up in the crow's-nest in a twinkling. The ice lay extended everywhere, as far as the eye could reach through the fog, which had lifted a little. There was no small quantity of ice, but it was tolerably open, and there was nothing for it but to be true to our watchword and *gå fram*—push onward.

Just as our prospects were at their darkest, and we were preparing to seek a way back out of the ice which kept getting ever denser, the joyful tidings came that the fog was lifting, and that clear water was visible ahead to the east on the other side of the ice. After forcing our way ahead for some hours between the heavy floes, we were once more in open water. This first bout with the ice, however, showed us plainly what an excellent ice-boat the *Fram* was. It was a royal pleasure to work her ahead through difficult ice. She twisted and turned 'like a ball on a platter.' No channel between the floes so winding and awkward but she could get through it. And how strong she is too! Even when she goes full speed at a floe, not a creak, not a sound is to be heard in her; if she gives a little shake it is all she does.

Later in the day we neared Yugor Strait. We kept a sharp look-out for land ahead, but none could be seen.

Hour after hour passed as we glided onward at good speed, but still no land. Certainly it would not be high land, but nevertheless this was strange. Yes—there it lies like a low shadow over the horizon on the port bow.

We now glided into the strait with its low rocky shores on either side. The strata of the rocks lie endways, and are crumpled and broken, but on the surface everything is level and smooth. No one who travels over the flat, green plains and tundras would have any idea of the mysteries and upheavals that lie hidden beneath the sward. Here, once upon a time, were mountains and valleys, now all worn away and washed out.

We looked out for Khabarova. On the north side of the sound there was a mark; a shipwrecked sloop lay on the shore, it was a Norwegian sealer. The wreck of a smaller vessel lay by its side. On the south side was a flagstaff, and on it a red flag; Khabarova must then lie behind it. At last one or two buildings or shanties appeared behind a promontory, and soon the whole place lay exposed to view, consisting of tents and a few houses.

A boat was now seen slowly approaching from the land. A man of middle height, with an open, kindly face and reddish beard, came on board. He might have been a Norwegian from his appearance. I went to meet him, and asked him in German if he was Trontheim. Yes, he was. After him there came a number of strange figures clad in heavy robes of reindeer-skin, which nearly touched the deck. On their heads they wore peculiar caps of reincalf-skin, beneath which strongly marked bearded faces showed forth, such as might well have belonged to old Norwegian Vikings.

The first question I asked Trontheim was about the ice. He replied that Yugor Strait had been open a long while, and that he had been expecting our arrival every day since then with ever-increasing anxiety.

Next we inquired about the dogs and learned that everything was all right with them. To make sure, Trontheim had purchased forty dogs, though I had only asked for thirty. Five of these, from various mishaps, had died during their journey—one had been bitten to death, two had got hung fast and had been strangled while passing through a forest, etc., etc. One, moreover, had been taken ill a few days before, and was still on the sick list; but the remaining thirty-four were in good condition; we could hear them howling and barking. During this conversation we had come as near to Khabarova as we dared venture, and at seven in the evening cast anchor in about 3 fathoms of water.

After supper we went ashore, and were soon on the flat beach of Khabarova, the Russians and Samoyedes regarding us with the utmost curiosity. We proceeded to the dog-camp, which was situated on a plain at some distance from the houses and tents. As we approached it the howling and barking kept getting worse and worse. When a short distance off, we were surprised to see a Norwegian flag on the top of a pole. Trontheim's face beamed with joy as our eyes fell on it. It was, he said, under the same flag as our expedition that his had been undertaken. There stood the dogs tied up, making a deafening clamour. Many of them appeared to be well-bred animals—long-haired, snow-white, with up-standing ears and pointed muzzles.

With their gentle, good-natured looking faces they at once ingratiated themselves in our affections. Some of them more resembled a fox, and had shorter coats, while others were black or spotted. Evidently they were of different races, and some of them betrayed by their drooping ears a strong admixture of European blood.

Naturally our first and foremost object was to learn all we could about the ice in the Arctic Sea. We had determined to push on as soon as possible; but we must have the boiler put in order first, while sundry pipes and valves in the engine wanted seeing to. As it would take several days to do this, Sverdrup, Peter Henriksen, and I set out next morning in our little petroleum launch to the eastern opening of the Yugor Strait, to see with our own eyes what might be the condition of the ice to the eastward. Near the eastern mouth of the strait we put into a little creek, dragged the boat up on the beach, and then taking our guns made for some high-lying land we had noticed. We tramped along over the same undulating plain-land with low ridges as we had seen everywhere round the Yugor Strait. A brownish-green carpet of moss and grass spread over the plain, bestrewn with flowers of rare beauty. During the long, cold Siberian winter the snow lies in a thick mass over the tundra; but no sooner does the sun get the better of it than hosts of tiny northern flowers burst their way up through the last disappearing coating of snow, and open their modest calices, blushing in the radiant summer day that bathes the plain in its splendour. Saxifrages with large

blooms, pale yellow mountain poppies, stand in bright clusters, and here and there with bluish forget-me-nots and white cloud-berry flowers; in some boggy hollows the cotton-grass spreads its wavy down carpet, while in other spots small forests of bluebells softly tinkle in the wind on their upright stalks. These flowers are not at all brilliant specimens, being in most cases not more than a couple of inches high, but they are all the more exquisite on that account, and in such surroundings their beauty is singularly attractive. While the eye vainly seeks for a resting place over the boundless plain these modest blooms smile at you, and take the fancy captive.

And over these mighty tundra-plains of Asia, stretching infinitely onward from one sky-line to the other, the nomad wanders with his reindeer-herds, a glorious, free life! Where he wills he pitches his tent, his reindeer around him; and at his will again he goes on his way. I almost envied him. He has no goal to struggle toward, no anxieties to endure—he has merely to live! I well-nigh wished that I could live his peaceful life, with wife and child, on these boundless, open plains, unfettered, happy.

From the tops of the ridges we could see over the Kara Sea to the north-east. Everywhere ice could be descried through the telescope, far on the horizon—ice, too, that seemed tolerably close and massive. But between it and the coast there was open water, stretching like a wide channel, as far as the eye could reach, to the south-east. This was all we could make out, but it was in reality all we wanted. There seemed to be no

doubt that we could make our way forward, and, well satisfied, we returned to our boat. Here we lighted a fire of driftwood, and made some glorious coffee.

On our way back we ran at full speed on to a sunken rock. After a bump or two, the boat slid over it; but just as she was slipping off on the other side, the propeller struck on the rock, so that the stern gave a bound into the air while the engine whizzed round at a tearing rate. It all happened in a second, before I had time to stop her. Unluckily one screw-blade was broken off, but we drove ahead with the other as best we could. Our progress was certainly rather uneven, but for all that we managed to get on somehow.

Toward morning we drew near the *Fram*, passing two Samoyedes who had drawn their boat up on an ice-floe and were looking out for seals. I wonder what they thought when they saw our tiny boat shoot by them without steam, sails, or oars. We, at all events, looked down on these 'poor savages' with the self-satisfied compassion of Europeans, as, comfortably seated, we dashed past them.

But pride comes before a fall! We had not gone far when—*whirr*, *whirr*, *whirr*—a fearful racket! bits of broken steel springs whizzed past my ears, and the whole machine came to a dead stop. It was not to be moved either forward or backward. The vibration of the one-bladed propeller had brought the lead-line little by little within the range of the flywheel, and all at once the whole line was drawn into the machinery, and got so dreadfully entangled in it that we had to take the whole thing to pieces to get it clear once more. So we

had to endure the humiliation of rowing back to our proud ship, for whose fleshpots we had long been anhungered.

In the evening some of us went on shore to try the dogs. Trontheim picked out ten of them, and harnessed them to a Samoyede sledge. No sooner were we ready and I had taken my seat than the team caught sight of a wretched strange dog that had come near, and off dashed dogs, sledge, and my valuable person after the poor creature. There was a tremendous uproar; all the ten tumbled over each other like wild wolves, biting and tearing wherever they could catch hold; blood ran in streams, and the culprit howled pitiably, while Trontheim tore round like a madman, striking right and left with his long switch. Samoyedes and Russians came screaming from all sides. I sat passively on the sledge in the middle of it all, dumb with fright, and it was ever so long before it occurred to me that there was perhaps something for me too to do. With a horrible yell I flung myself on some of the worst fighters, got hold of them by the neck, and managed to give the culprit time to get away.

Our team had got badly mixed up during the battle, and it took some time to disentangle them. At last everything was once more ready for the start. Trontheim cracked his whip, and called, "*Pr-r-r-r, pr-r-r-r,*" and off we went at a wild gallop, over grass, clay, and stones, until it seemed as if they were going to carry us right across the lagoon at the mouth of the river. I kicked and pulled in with all my might, but was dragged along, and it was all that Trontheim and I with our

united strength could do to stop them just as they were going into the water, although we shouted "*Sass, sass,*" so that it echoed over the whole of Khabarova. But at last we got our team turned in another direction, and off we set again merrily at such a pace that I had enough to do to hold on. It was an extraordinary summer ride; and it gave us a high opinion of the dogs' strength, seeing how easily they drew two men over this, to put it mildly, bad sledging-ground. We went on board again well satisfied, also the richer, by a new experience; having learnt that dog-driving, at any rate to begin with, requires much patience.

Next day, August 3rd, we were at last ready for a start, and the thirty-four dogs were brought on board in the afternoon, with great noise and confusion. They were all tied up on the deck forward, and began by providing more musical entertainment than we desired. By evening the hour had come. We got up steam—everything was ready. But such a thick fog had set in that we could not see the land. Now came the moment when our last friend, Christofersen, was to leave the ship. We supplied him with the barest sufficiency of provisions and some Ringnes's ale. While this was being done, last lines were added in feverish eagerness to the letters home. Then came a last handclasp; Christofersen and Trontheim got into the boat, and had soon disappeared in the fog. With them went our last post; our last link with home was broken. We were alone in the mist on the sea. It was not likely that any message from us would reach the world before we ourselves brought the news of our success or defeat.

III

VOYAGE THROUGH THE KARA SEA

It was well into the night after Christofersen and Trontheim had left us before we could get away. The channel was too dangerous for us to risk it in the thick fog. But it cleared a little, and the petroleum launch was got ready; I had determined to go on ahead with it and take soundings. We started about midnight. Hansen stood in the bow with the lead-line. First we bore over toward the point of Vaigats to the north-west, as Palander directs, then on through the strait, keeping to the Vaigats side. The fog was often so thick that it was with difficulty we could catch a glimpse of the *Fram*, which followed close behind us, and on board the *Fram* they could not see our boat. But so long as we had enough water, and so long as we saw that they were keeping to the right course behind us, we went ahead. Soon the fog cleared again a little. But the depth was not quite satisfactory; we had been having steadily $4\frac{1}{2}$ to 5 fathoms; then it dropped to 4 and then to $3\frac{1}{2}$. This was too little. We turned and signalled to the *Fram* to stop. Then we held farther out from land and got into deeper water, so that the *Fram* could come on again at full speed.

From time to time our petroleum engine took to its old tricks and stopped. I had to pour in more oil to set it going again, and as I was standing doing this, the

boat gave a lurch, so that a little oil was spilt, and took fire. The burning oil ran over the bottom of the boat, where a good deal had been spilt already. In an instant the whole stern was in a blaze, and my clothes, which were sprinkled with oil, caught fire. I had to rush to the bow, and for a moment the situation was a critical one, especially as a big pail that was standing full of oil also took fire. As soon as I had stopped the burning of my clothes I rushed aft again, seized the pail, and poured the flaming oil into the sea, burning my fingers badly. At once the whole surface of the water round was in flames. Then I got hold of the baler, and baled water into the boat as hard as I could; and soon the worst was over. Things had looked anything but well from the *Fram*, however, and they were standing by with ropes and buoys to throw to us.

Soon we were out of Yugor Strait. There was now so little fog that the low land round us was visible, and we could also see a little way out to sea, and, in the distance, all drift-ice. At four o'clock in the morning (August 4th) we glided past Sokolii, or Hawk Island, out into the dreaded Kara Sea.

On Sunday, August 20th, we had, for us, uncommonly fine weather—blue sea, brilliant sunshine, and light wind, still from the north-east. In the afternoon we ran in to the Kjellman Islands. These we could recognise from their position on Nordenskiöld's map, but south of them we found many unknown ones. They all had smoothly rounded forms, these Kjellman Islands, like rocks that have been ground smooth by the glaciers of the Ice Age. The *Fram* anchored on the

north side of the largest of them, and whilst the boiler was being refitted, some of us went ashore, in the evening, for some shooting.

When we got up on to the first height we saw several reindeer on flat ground to the south of us; but the wind being from the north, we had to go back and make our way south along the shore till we got to leeward of them. The only one who did not approve of this plan was the mate, who was in a state of feverish eagerness to rush straight at some reindeer he thought he had seen to the east, which, of course, was an absolutely certain way to clear the field of every one of them. He asked and received permission to remain behind with Hansen, who was to take a magnetic observation; but had to promise not to move till he got the order.

A little to the north of the reindeer nearest us there was a hollow, opening from the shore, from which it seemed that it might be possible to get a shot at them. I went back to try this, whilst the others kept their places in the line. As I went down again toward the shore I had the sea before me, quiet and beautiful. The sun had gone down behind it not long before, and the sky was glowing in the clear, light night. I had to stand still for a minute. In the midst of all this beauty, man was doing the work of a beast of prey! At this moment I saw to the north a dark speck move down the height where the mate and Hansen ought to be. It divided into two, and the one moved east, just to the windward of the animals I was to stalk. They would get the scent immediately, and be off. There was nothing for it but to hurry on, while I rained anything

but good wishes on these fellows' heads. The gully was not so deep as I had expected. Its sides were just high enough to hide me when I crept on all fours. In the middle were large stones and clayey gravel, with a little runnel soaking through them. The reindeer were still grazing quietly, only now and then raising their heads to look round. My 'cover' got lower and lower, and to the north I heard the mate. He would presently succeed in setting off my game. It was imperative to get on quickly, but there was no longer cover enough for me to advance on hands and knees. My only chance was to wriggle forward like a snake on my stomach.

All this time the sky was turning darker and darker red behind me, and it was getting more and more difficult to use the sights of my gun, not to mention the trouble I had in keeping the clay from them and from the muzzle. The reindeer still grazed quietly on. When they raised their heads to look round I had to lie as quiet as a mouse, feeling the water trickling gently under my stomach; when they began to nibble the moss again, off I went through the mud. Presently I made the disagreeable discovery that they were moving away from me about as fast as I could move forward, and I had to redouble my exertions. But the darkness was getting worse and worse, and I had the mate to the north of me, and presently he would start them off. The outlook was anything but bright either morally or physically. The hollow was getting shallower and shallower, so that I was hardly covered at all; I squeezed myself still deeper into the mud. A turn in the ground helped me forward to the next little height, and now

they were right in front of me, within what I should have called easy range if it had been daylight. I tried to take aim, but could not see the bead on my gun.

There was no sense in thinking of waiting for light to shoot by; it was now midnight, and I had that terrible mate to the north of me; besides, the wind was not to be trusted. I held the rifle up against the sky to see the bead clearly, and then lowered it on the reindeer. I did this once, twice, thrice. The bead was still far from clear; but all the same I thought I might hit, and pulled the trigger. The two deer gave a sudden start, looked round in astonishment, and bolted off a little way south. There they stood still again, and at this moment were joined by a third deer, which had been standing rather farther north. I fired off all the cartridges in the magazine, and all to the same good purpose. The creatures started and moved off a little at each shot, and then trotted farther south. Presently they made another halt, to take a long careful look at me; and I dashed off westward, as hard as I could run, to turn them. Now they were off straight in the direction where some of my comrades ought to be. I expected every moment to hear shots and see one or two of the animals fall; but away they ambled southward, quite unchecked. At last, far to the south, crack went a rifle. I could see by the smoke that it was at too long a range; so in high dudgeon I shouldered my rifle and lounged in the direction of the shot. It was pleasant to see such a good result for all one's trouble.

No one was to be seen anywhere. At length I met Sverdrup; it was he who had fired. Soon Blessing

joined us, but all the others had long since left their posts. Whilst Blessing went back to the boat and his botanising box Sverdrup and I went on to try our luck once more.

The time seemed long. At first we listened with all our ears—the reindeer must come very soon—and our eyes wandered incessantly back and forward along the slope on the other side of the valley. But no reindeer came, and soon we were having a struggle to keep our eyes open and our heads up—we had not had much sleep the last few days. They *must* be coming! We shook ourselves awake, and gave another look along the bank, till again the eyes softly closed and the heads began to nod, while the chill wind blew through our wet clothes, and I shivered with cold. This sort of thing went on for an hour or two, until the sport began to pall on me, and I scrambled from my shelter along toward Sverdrup, who was enjoying it about as much as I was. We climbed the slope on the other side of the valley, and were hardly at the top before we saw the horns of six splendid reindeer on a height in front of us. They were restless, scenting westward, trotting round in a circle, and then sniffing again. They could not have noticed us as yet, as the wind was blowing at right angles to the line between them and us. We stood a long time watching their manœuvres, and waiting their choice of a direction, but they had apparently great difficulty in making it. At last off they swung south and east, and off we went south-east as hard as we could go, to get across their course before they got scent of us. Sverdrup had got well ahead, and I saw him rushing

across a flat piece of ground—presently he would be at the right place to meet them. I stopped, to be in readiness to cut them off on the other side if they should face about and make off northward again. There were six splendid animals, a big buck in front. They were heading straight for Sverdrup, who was now crouching down on the slope. I expected every moment to see the foremost fall. A shot rang out! Round wheeled the whole flock like lightning, and back they came at a gallop. It was my turn now to run with all my might, and off I went over the stones, down toward the valley we had come from. I only stopped once or twice to take breath and to make sure that the animals were coming in the direction I had reckoned on—then off again. We were getting near each other now, they were coming on just where I had calculated, the thing now was to be in time for them. I made my long legs go their fastest over the boulders, and took leaps from stone to stone that would have surprised myself at a more sober moment. More than once my foot slipped and I went down head first among the boulders, gun and all. But the wild beast in me had the upper hand now. The passion of the chase vibrated through every fibre of my body.

We reached the slant of the valley almost at the same time—a leap or two to get up on some big boulders, and the moment had come—I *must* shoot, though the shot was a long one. When the smoke cleared away I saw the big buck trailing a broken hind-leg. When their leader stopped, the whole flock turned and ran in a ring round the poor animal. They could not understand

what was happening, and strayed about wildly with the balls whistling round them. Then off they went down the side of the valley again, leaving another of their number behind with a broken leg. I tore after them, across the valley and up the other side, in the hope of getting another shot, but gave that up and turned back to make sure of the two wounded ones. At the bottom of the valley stood one of the victims awaiting its fate. It looked imploringly at me, and then, just as I was going forward to shoot it, made off much quicker than I could have thought it possible for an animal on three legs to go. Sure of my shot, of course I missed; and now began a chase, which ended in the poor beast, blocked in every other direction, rushing down toward the sea and wading into a small lagoon on the shore, whence I feared it might get right out into the sea. At last it got its quietus there in the water. The other one was not far off, and a ball soon put an end to its sufferings also. As I was proceeding to rip it up Henriksen and Johansen appeared; they had just shot a bear a little farther south.

It was no easy task to get our heavy game into the boat with these big waves breaking on the flat beach. We had to keep the boat outside the surf, and haul both skins and flesh on board with a line; a good deal of water came with them, but there was no help for it. And then we had to row north along the shore against the wind and sea as hard as we could. It was very tough work. The wind had increased, and it was all we could do to make headway against it. Seals were diving round us, white whales coming and going, but

we had no eyes for them now. Suddenly Henriksen called out that there was a bear on the point in front. I turned round, and there stood a beautiful white fellow rummaging among the flotsam on the beach. As we had no time to shoot it we rowed on, and it went slowly in front of us northward along the shore. At last, with great exertions we reached the bay where we were to put in for the reindeer. The bear was there before us. It had not seen the boat hitherto; but now it got scent of us, and came nearer. It was a tempting shot. I had my finger on the trigger several times, but did not draw it. After all we had no use for the animal; it was quite as much as we could do to stow away what we had already. It made a beautiful target of itself by getting up on a stone to have a better scent and looked about, and after a careful survey it turned round and set off inland at an easy trot.

The surf was by this time still heavier. It was a flat, shallow shore, and the waves broke a good way out from land. We rowed in till the boat touched ground and the breakers began to wash over us. The only way of getting ashore was to jump into the sea and wade. But getting the reindeer on board was another matter. There was no better landing-place farther north, and hard as it was to give up the excellent meat after all our trouble, it seemed to me there was nothing else for it, and we rowed off toward our ship.

It was the hardest row I ever had a hand in. It went pretty well to begin with; we had the current with us, and got quickly out from land; but presently the wind rose, the current slackened, and wave after wave broke

over us. After incredible toil, we had at last only a short way to go.

"Row, boys!" And row we did, and soon they had hauled us alongside of the *Fram*. Not till we were lying there getting our bearskins and flesh hauled on board, did we really know what we had had to fight against. The current was running along the side of the ship like a rapid river. At last we were actually on board. It was evening by this time, and it was splendid to get some good, hot food and then stretch one's limbs in a comfortable, dry berth.

What a constant alternation of light and shadow there is in this Arctic land! When I went up to the crow's-nest on the morning of September 9th, I saw that the ice to the north had loosened from the land, and I could trace a channel which might lead us northward into open water. I at once gave the order to get up steam. The barometer was certainly low—lower than we had ever had it yet; it was down to 733 millimetres (28·8 inches); the wind was blowing in heavy squalls off the land, and in on the plains the gusts were whirling up clouds of sand and dust.

Sverdrup thought it would be safer to stay where we were; but it would be too annoying to miss this splendid opportunity: and the sunshine was so beautiful, and the sky so smiling and reassuring. I gave orders to set sail, and soon we were pushing on northward through the ice, under steam, and with every stitch of canvas that we could crowd on. Cape Chelyuskin must be vanquished! Never had the *Fram* gone so fast; she made more than 8 knots by the log; it seemed as though she

knew how much depended on her getting on. Soon we were through the ice, and had open water along the land as far as the eye could reach. We passed point after point, discovering new fjords and islands on the way, and soon I thought that I caught a glimpse through the large telescope of some mountains far awa north; they must be in the neighbourhood of Cape Chelyuskin itself.

In the evening we were approaching the north end o the land, but the current, which we had had with u earlier in the day, was now against us, and it seemed a if we were never to get past an island that lay off the shore to the north of us. The mountain height which I had seen at an earlier hour through the telescope lay here some way inland. It was flat on the top with precipitous sides, like those mountains last described. It seemed to be sandstone or basaltic rock; only the horizontal strata of the ledges on its sides were not visible. I calculated its height at 1000 to 1500 feet. Out at sea we saw several new islands, the nearest of them being of some size.

The moment seemed to be at hand when we were at last to round that point which had haunted us for so long—the second of the greatest difficulties I expected to have to overcome on this expedition. I sat up in the crow's-nest in the evening, looking out to the north. The land was low and desolate. The sun had long since gone down behind the sea, and the dreamy evening sky was yellow and gold. It was lonely and still up here, high above the water. Only one star was to be seen. It stood straight above Cape Chelyuskin, shining clearly and sadly in the pale sky. As we sailed on and

got the cape more to the east of us, the star went with it; it was always there, straight above. I could not help sitting watching it. It seemed to have some charm for me, and to bring such peace.

Toward morning we were off what we took to be actually the northern extremity. We stood in near land, and at the change of the watch, exactly at four o'clock, our flags were hoisted, and our last three cartridges sent a thundering salute over the sea. Almost at the same moment the sun rose. Then our poetic doctor burst forth into the following touching lines:

> "Up go the flags, off goes the gun;
> The clock strikes four—and lo, the sun!"

As the sun rose the Chelyuskin troll, that had so long had us in his power, was banned. We had escaped the danger of a winter's imprisonment on this coast, and we saw the way clear to our goal, the drift-ice to the north of the New Siberian Islands. In honour of the occasion, all hands were turned out, and punch, fruit, and cigars were served in the festally lighted saloon. Something special in the way of a toast was expected on such an occasion. I lifted my glass, and made the following speech: "Skoal, my lads, and be glad we've passed Chelyuskin!"

Thursday, September 12th. Henriksen awoke me this morning at six with the information that there were several walruses lying on a floe quite close to us. "By Jove!" Up I jumped and had my clothes on in a trice. It was a lovely morning—fine, still weather; the walruses' guffaw sounded over to us along the clear ice surface. They were lying crowded together on a floe a

little to landward from us, blue mountains glittering behind them in the sun. At last the harpoons were sharpened, guns and cartridges ready, and Henriksen, Juell, and I set off. There seemed to be a slight breeze from the south, so we rowed to the north side of the floe, to get to leeward of the animals. From time to time their sentry raised his head, but apparently did not see us. We advanced slowly, and soon were so near that we had to row very cautiously. Juell kept us going, while Henriksen was ready in the bow with a harpoon, and I behind him with a gun. The moment the sentry raised his head the oars stopped, and we stood motionless; when he sunk it again, a few more strokes brought us nearer.

Body to body they lay close-packed on a small floe, old and young ones mixed. Enormous masses of flesh they were! Now and again one of the ladies fanned herself by moving one of her flappers backward and forward over her body; then she lay quiet again on her back or side. "Good gracious! what a lot of meat!" said Juell, who was cook. More and more cautiously we drew near. Whilst I sat ready with the gun Henriksen took a good grip of the harpoon shaft, and as the boat touched the floe he rose, and off flew the harpoon. But it struck too high, glanced off the tough hide, and skipped over the backs of the animals. Now there was a pretty to-do! Ten or twelve great weird faces glared upon us at once; the colossal creatures twisted themselves round with incredible celerity, and came waddling with lifted heads and hollow bellowings to the edge of the ice where we lay. It was undeniably an

imposing sight; but I laid my gun to my shoulder and fired at one of the biggest heads. The animal staggered, and then fell head foremost into the water. Now a ball into another head; this creature fell too, but was able to fling itself into the sea. And now the whole flock dashed in, and we as well as they were hidden in spray. It had all happened in a few seconds. But up they came again immediately round the boat, the one head bigger and uglier than the other—their young ones close beside them. They stood up in the water, bellowed and roared till the air trembled, threw themselves forward toward us, then rose up again, and new bellowings filled the air. Then they rolled over and disappeared with a splash, then bobbed up again. The water foamed and boiled for yards around—the ice-world that had been so still before seemed in a moment to have been transformed into a raging Bedlam. Any moment we might expect to have a walrus tusk or two through the boat, or to be heaved up and capsized. Something of this kind was the very least that could happen after such a terrible commotion. But the hurly-burly went on and nothing came of it. I again picked out my victims. Another ball, and one tumbled over and floated on the water; now a ball to the second, and it did the same. Henriksen was ready with the harpoons, and secured them both.

"Friday, September 22nd. Brilliant sunshine once again, and white dazzling ice ahead. First we lay still in the fog because we could not see which way to go; now it is clear and we know just as little about it. It looks as if we were at the northern boundary of the open

water. To the west the ice appears to extend south again. To the north it is compact and white—only a small open rift or pool every here and there; and the sky is whitish blue everywhere on the horizon. It is from the east we have just come, but there we could see very little; and for want of anything better to do, we shall make a short excursion in that direction, in the possibility of finding openings in the ice. If there were only time, what I should like would be to go east as far as Sannikoff Island, or, better still, all the way to Bennet Land, to see what condition things are in there; but it is too late now. The sea will soon be freezing, and we should run a great risk of being frozen in at a disadvantageous point."

Earlier Arctic explorers have considered it a necessity to keep near some coast. But this was exactly what I wanted to avoid. It was the drift of the ice that I wished to get into, and what I most feared was being blocked by land. It seemed as if we might do much worse than give ourselves up to the ice where we were, especially as our excursion to the east had proved that following the ice-edge in that direction would soon force us south again. So in the meantime we made fast to a great ice-block, and prepared to clean the boiler and shift coals. "We are lying in open water, with only a few large floes here and there; but I have a presentiment that this is our winter harbour."

"Monday, September 25th. Frozen in faster and faster! Beautiful still weather; 13 degrees of frost last night. Winter is coming now. Had a visit from a bear, which was off again before anyone got a shot at it."

IV

THE WINTER NIGHT

It really looked as if we were now frozen in for good and I did not expect to get the *Fram* out of the ice till we were on the other side of the Pole, nearing the Atlantic Ocean. Autumn was already well advanced; the sun stood lower in the heavens day by day; and the temperature sank steadily. The long night of winter was approaching—that dreaded night. There was nothing to be done except prepare ourselves for it, and by degrees we converted our ship, as well as we could, into comfortable winter quarters; while at the same time we took every precaution to assure her against the destructive influences of cold, drift-ice, and the other forces of nature to which it was prophesied that we must succumb.

We cleared up in the hold to make room for a joiner's workshop down there; our mechanical workshop we had in the engine-room. The smithy was at first on deck, and afterward on the ice; tinsmith's work was done chiefly in the chart-room, shoemaker's and sail-maker's, and various odd sorts of work, in the saloon. And all these occupations were carried on with interest and activity during the rest of the expedition. There was nothing, from the most delicate instruments down to wooden shoes and axe-handles, that could not be made on board the *Fram*. When we were found to

be short of sounding-line a grand rope-walk was constructed on the ice. It proved to be a very profitable undertaking, and was well patronized.

Presently we began putting up the windmill which was to drive the dynamo and produce the electric light. While the ship was going the dynamo was driven by the engine, but for a long time past we had had to be contented with petroleum lamps in our dark cabins. The windmill was erected on the port side of the fore-deck, between the main hatch and the rail. It took several weeks to get this important appliance into working order.

There was the care of the ship and rigging, the inspection of sails, ropes, etc., etc.; there were provisions of all kinds to be got out from the cases down in the hold, and handed over to the cook; there was ice—good, pure, fresh-water ice—to be found and carried to the galley to be melted for cooking, drinking, and washing-water. Then, as already mentioned, there was always something doing in the various workshops.

To these varied employments was presently added, as the most important of all, the taking of scientific observations, which gave many of us constant occupation. Those that involved the greatest labour were, of course, the meteorological observations, which were taken every four hours day and night; indeed, for a considerable part of the time, every two hours. They kept one man, sometimes two, at work all day. It was Hansen who had the principal charge of this department, and his regular assistant until March 1895 was Johansen, whose place was then taken by Nordahl.

The night observations were taken by whoever was on watch. About every second day, when the weather was clear, Hansen and his assistant took the astronomical observation which ascertained our position. This was certainly the work which was followed with most interest by all the members of the expedition; and it was not uncommon to see Hansen's cabin, while he was making his calculations, besieged with idle spectators, waiting to hear the result—whether we had drifted north or south since the last observation, and how far. The state of feeling on board very much depended on these results.

Hansen had also at stated periods to take observations to determine the magnetic constant in this unknown region. These were carried on at first in a tent, specially constructed for the purpose, which was soon erected on the ice; but later we built him a large snow hut, as being both more suitable and more comfortable.

For the ship's doctor there was less occupation. He looked long and vainly for patients, and at last had to give it up and in despair take to doctoring the dogs.

Among our scientific pursuits may also be mentioned the determining of the temperature of the water and of its degree of saltness at varying depths; the collection and examination of such animals as are to be found in these northern seas; the ascertaining of the amount of electricity in the air; the observation of the formation of the ice, its growth and thickness, and of the temperature of the different layers of ice; the investigation of the currents in the water under it, etc., etc. I had the main charge of this department. There remains to be

mentioned the regular observation of the aurora borealis, which we had a splendid opportunity of studying. After I had gone on with it for some time, Blessing undertook this part of my duties; and when I left the ship I made over to him all the other observations that were under my charge. Not an inconsiderable item of our scientific work were the soundings and dredgings. At the greater depths, it was such an undertaking that every one had to assist; and from the way we were obliged to do it later, one sounding sometimes gave occupation for several days.

One day differed very little from another on board, and the description of one is, in every particular of any importance, a description of all.

We all turned out at eight, and breakfasted on hard bread (both rye and wheat), cheese (Dutch clove cheese, Cheddar, Gruyère, and Mysost, or goat's-whey cheese, prepared from dry powder), corned beef or corned mutton, luncheon ham or Chicago tinned tongue or bacon, cod-caviare, anchovy roe; also oatmeal biscuits or English ship-biscuits—with orange marmalade or Frame Food jelly. Three times a week we had fresh-baked bread as well, and often cake of some kind. As for our beverages we began by having coffee and chocolate day about; but afterward had coffee only two days a week, tea two, and chocolate three.

After breakfast some men went to attend to the dogs —give them their food, which consisted of half a stock-fish or a couple of dog biscuits each; let them loose; or do whatever else there was to do for them. The others went all to their different tasks. Each took his turn of

a week in the galley—helping the cook to wash up, lay the table, and wait. The cook himself had to arrange his bill of fare for dinner immediately after breakfast, and to set about his preparations at once. Some of us would take a turn on the floe to get some fresh air, and to examine the state of the ice, its pressure, etc. At one o'clock all were assembled for dinner, which generally consisted of three courses—soup, meat, and dessert; or soup, fish, and meat; or fish, meat, and dessert; or sometimes only fish and meat. With the meat we always had potatoes and either green vegetables or macaroni. I think we were all agreed that the fare was good; it would hardly have been better at home; for some of us it would perhaps have been worse. And we looked like fatted pigs; one or two even began to cultivate a double chin and a corporation. As a rule, stories and jokes circulated at table along with the bock-beer.

After dinner the smokers of our company would march off, well fed and contented, into the galley, which was smoking-room as well as kitchen, tobacco being tabooed in the cabins except on festive occasions. Out there they had a good smoke and chat; many a story was told, and not seldom some warm dispute arose. Afterward came, for most of us, a short siesta. Then each went to his work again until we were summoned to supper at six o'clock, when the regulation day's work was done. Supper was almost the same as breakfast, except that tea was always the beverage. Afterward there was again smoking in the galley, while the saloon was transformed into a silent reading-room. Good use

was made of the valuable library presented to the expedition by generous publishers and other friends. If the kind donors could have seen us away up there, sitting round the table at night with heads buried in books or collections of illustrations, and could have understood how invaluable these companions were to us, they would have felt rewarded by the knowledge that they had conferred a real boon—that they had materially assisted in making the *Fram* the little oasis that it was in this vast ice-desert. About half-past seven or eight cards or other games were brought out, and we played well on into the night, seated in groups round the saloon table. One or other of us might go to the organ, and with the assistance of the crank handle, perform some of our beautiful pieces, or Johansen would bring out the accordion and play many a fine tune. His crowning efforts were *Oh, Susanna!* and *Napoleon's March across the Alps in an Open Boat.* About midnight we turned in, and then the night watch was set. Each man went on for an hour. Their most trying work on watch seems to have been writing their diaries and looking out, when the dogs barked, for any signs of bears at hand. Besides this, every two hours or four hours, the watch had to go aloft or on to the ice to take the meteorological observations.

I believe I may safely say that on the whole the time passed pleasantly and imperceptibly, and that we throve in virtue of the regular habits imposed upon us.

My notes from day to day will give the best idea of our life, in all its monotony. They are not great events that are here recorded, but in their very bare-

ness they give a true picture. Such, and no other, was our life. I shall give some quotations direct from my diary:

"Thursday, September 28th. Snowfall with wind. To-day the dogs' hour of release has come. Until now their life on board has been really a melancholy one. They have been tied up ever since we left Khabarova. The stormy seas have broken over them, and they have been rolled here and there in the water on the deck; they have half hanged themselves in their leashes, howling miserably; they have had the hose played over them every time the deck was washed; they have been sea-sick; in bad as in good weather they have had to lie on the spot hard fate had chained them to, without more exercise than going backward and forward the length of their chains. It is thus you are treated, you splendid animals, who are to be our stay in the hour of need! When that time comes you will, for a while at least, have the place of honour. When they were let loose there was a perfect storm of jubilation. They rolled in the snow, washed and rubbed themselves, and rushed about the ice in wild joy, barking loudly. Our floe, a short time ago so lonesome and forlorn, was quite a cheerful sight with this sudden population; the silence of ages was broken."

It was our intention after this to tie up the dogs on the ice.

"Monday, October 2nd. As Sverdrup, Juell, and I were sitting in the chart-room in the afternoon, splicing rope for the sounding-line, Peter Henriksen rushed in shouting, 'A bear! a bear!' I snatched up my rifle,

and tore out. 'Where is it?' 'There, near the tent, on the starboard side; it came right up to it, and had almost got hold of them.'

"And there it was, big and yellow, snuffing away at the tent gear. Hansen, Blessing, and Johansen were running at the top of their speed toward the ship. On to the ice I jumped, and off I went, broke through, stumbled, fell, and up again. The bear in the meantime had done snuffing, and had probably determined that an iron spade, an ice-staff, an axe, some tent-pegs, and a canvas tent were too indigestible food even for a bear's stomach. Anyhow it was following with mighty strides in the track of the fugitives. It caught sight of me, and stopped astonished, as if it were thinking, 'What sort of insect can *that* be?' I went on to within easy range; it stood still, looking hard at me. At last it turned its head a little, and I gave it a ball in the neck. Without moving a limb, it sank slowly to the ice. I now let loose some of the dogs, to accustom them to this sort of sport, but they showed a lamentable want of interest in it; and Kvik, on whom all our hope in the matter of bear-hunting rested, bristled up and approached the dead animal very slowly and carefully, with her tail between her legs—a sorry spectacle.

"I must now give the story of the others who made the bear's acquaintance first. Hansen had to-day begun to set up his observatory tent a little ahead of the ship on the starboard bow. In the afternoon he got Blessing and Johansen to help him. While they were hard at work they caught sight of a bear not far from them, just off the bow of the *Fram*.

"'Hush! Keep quiet, in case we frighten him,' says Hansen.

"'Yes, yes!' And they crouch together and look at him.

"'I think I'd better try to slip on board and announce him,' says Blessing.

"'I think you should,' says Hansen.

"And off steals Blessing on tiptoe, so as not to frighten the bear. By this time Bruin has seen and scented them, and comes jogging along, following his nose, toward them.

"Hansen now began to get over his fear of startling him. The bear caught sight of Blessing slinking off to the ship, and set after him. Blessing also was now much less concerned than he had been as to the bear's nerves. He stopped uncertain what to do; but a moment's reflection brought him to the conclusion that it was pleasanter to be three than one just then, and he went back to the others faster than he had gone from them. The bear followed at a good rate. Hansen did not like the look of things, and thought the time had come to try a dodge he had seen recommended in a book. He raised himself to his full height, flung his arms about, and yelled with all the power of his lungs, ably assisted by the others. But the bear came on quite undisturbed. The situation was becoming critical. Each snatched up his weapon—Hansen an ice-staff, Johansen an axe, and Blessing nothing. They screamed with all their strength, 'Bear! bear!' and set off for the ship as hard as they could tear. But the bear held on his steady course to the tent, and examined

everything there before (as we have seen) he went after them.

"After this day some of the members of the expedition would hardly leave the ship without being armed to the teeth."

"Wednesday, October 11th. The bad news was brought this afternoon that Job is dead, torn in pieces by the other dogs. He was found a good way from the ship, Old Suggen lying watching the corpse, so that no other dog could get to it. They are wretches, these dogs; no day passes without a fight. In the daytime one of us is generally at hand to stop it, but at night they seldom fail to tear and bite one of their comrades. Poor Barabbas is almost frightened out of his wits. He stays on board now, and dares not venture on the ice, because he knows the other monsters would set on him. There is not a trace of chivalry about these curs. When there is a fight, the whole pack rush like wild beasts on the loser. But is it not, perhaps, the law of nature that the strong, and not the weak, should be protected? Have not we human beings, perhaps, been trying to turn nature topsy-turvy by protecting and doing our best to keep life in all the weak?"

"Thursday, October 26th. To-day we took solemn farewell of the sun. Half of its disk showed at noon for the last time above the edge of the ice in the south, a flattened body, with a dull red glow, but no heat. Now we are entering the night of winter. What is it bringing us? Where shall we be when the sun returns? No one can tell. To console us for the loss of the sun, we have the most wonderful moonlight; the moon goes

round the sky night and day. There is, strange to say' little pressure just now; only an occasional slight squeeze. But the ice often opens considerably; there are large pieces of water in several directions; to-day there were some good-sized ones to the south."

"Monday, November 27th. The prevailing wind has been southerly, with sometimes a little east. The temperature still keeps between 13° and 22° below zero; in the hold it has fallen to 12°."

It has several times struck me that the streamers of the aurora borealis followed in the direction of the wind, from the wind's eye on the horizon. On Thursday morning, when we had very slight north-easterly wind, I even ventured to prophesy, from the direction of the streamers, that it would go round to the south-east, which it accordingly did. On the whole there has been much less of the aurora borealis lately than at the beginning of our drift. Still, though it may have been faint, there has been a little every day. To-night it is very strong again. These last days the moon has sometimes had rings round it, with mock-moons and axes—accompanied by rather strange phenomena. When the moon stands so low that the ring touches the horizon a bright field of light is formed where the horizon cuts the ring. Similar expanses of light are also formed where the perpendicular axis from the moon intersects the horizon. Faint rainbows are often to be seen in these shining light-fields; yellow was generally the strongest tint nearest the horizon, passing over into red, and then into blue. Similar colours could also be distinguished in the mock-moons. Sometimes there are

two large rings—the one outside the other—and then there may be four mock-moons. I have also seen part of a new ring above the usual one, meeting it at a tangent directly above the moon. As is well known, these various ring-formations round the sun, as well as round the moon, are produced by the refraction of rays of light by minute ice-crystals floating in the air.

"Thursday, November 30th. The lead showed a depth of exactly 93 fathoms (170 metres) to-day, and it seemed by the line as if we were drifting north-west. We are almost certainly farther north now; hopes are rising, and life is looking brighter again. My spirits are like a pendulum, if one could imagine such an instrument giving all sorts of irregular swings backward and forward. It is no good trying to take the thing philosophically; I cannot deny that the question whether we are to return successful or unsuccessful affects me very deeply. It is quite easy to convince myself with the most incontrovertible reasoning that what really matters is to carry through the expedition, whether successfully or not, and get safe home again. I could not but undertake it; for my plan was one that I felt must succeed, and therefore it was my duty to try it. Well, if it does not succeed, is that my affair? I have done my duty, done all that could be done, and can return home with an easy conscience to the quiet happiness I have left behind. What can it matter whether chance, or whatever name you like to give it, does or does not allow the plan to succeed and make our names immortal? The worth of the plan is the same whether chance smiles or frowns upon it. And

as to immortality, happiness is all we want, and that is not to be had here."

"Friday, December 8th. Hansen came down to give notice of what really was a remarkable appearance of aurora borealis. No words can depict the glory that met our eyes. The glowing fire-masses had divided into glistening, many coloured bands, which were writhing and twisting across the sky both in the south and north. The rays sparkled with the purest, most crystalline rainbow colours, chiefly violet-red or carmine and the clearest green. Most frequently the rays of the arch were red at the ends, and changed higher up into sparkling green, which quite at the top turned darker, and went over into blue or violet before disappearing in the blue of the sky; or the rays in one and the same arch might change from clear red to clear green, coming and going as if driven by a storm. It was an endless phantasmagoria of sparkling colour, surpassing anything that one can dream. Sometimes the spectacle reached such a climax that one's breath was taken away; one felt that now something extraordinary must happen—at the very least the sky must fall. But as one stands in breathless expectation, down the whole thing trips, as if in a few quick, light scale-runs, into bare nothingness."

"Tuesday, December 12th. Had a long walk south-east this morning. The ice is in much the same condition there as it is to the west, packed or pressed up into mounds, with flat floes between. This evening the dogs suddenly began to make a great commotion on deck. As the disturbance continued I at last went up myself, followed by Johansen. From different positions

we looked long and hard into the darkness in the direction in which the dogs were barking, but we could see nothing moving. That something must be there was quite certain; and I had no doubt that it was a bear, for the dogs were almost beside themselves. Pan looked up into my face with an odd expression, as if he had something important to tell me, and then jumped up on the rail and barked away to the north. The dogs' excitement was quite remarkable; they had not been so keen when the bear was close in to the side of the ship. However, I contented myself with remarking that the thing to do would be to loose some dogs and go north with them over the ice. But these wretched dogs won't tackle a bear, and besides it is so dark that there is hardly a chance of finding anything. If it is a bear he will come again. At this season, when he is so hungry, he will hardly go right away from all the good food for him here on board. I struck about with my arms to get a little heat into me, then went below and to bed. The dogs went on barking, sometimes louder than before. Nordahl, whose watch it was, went up several times, but could discover no reason for it. As I was lying reading in my berth I heard a peculiar sound; it was like boxes being dragged about on deck, and there was also scraping, like a dog that wanted to get out, scratching violently at a door. I thought of Kvik, who was shut up in the chart-room. I called into the saloon to Nordahl that he had better go up again and see what this new noise was. He did so, but came back saying that there was still nothing to be seen. It was difficult to sleep, and I lay long tossing about."

"Wednesday, December 13th. Before I was rightly awake this morning I heard the dogs 'at it' still, and the noise went on all the time of breakfast, and had, I believe, gone on all night. After breakfast Mogstad and Peter went up to feed the wretched creatures and let them loose on the ice. Three were missing. Peter came down to get a lantern; he thought he might as well look if there were any tracks of animals. Jacobsen called after him that he had better take a gun. No, he did not need one, he said. A little later, as I was sitting sorrowfully absorbed in the calculation of how much petroleum we have used, and how short a time our supply will last if we go on burning it at the same rate, I heard a scream at the top of the companion. 'Come with a gun.' In a moment I was in the saloon, and there was Peter tumbling in at the door, breathlessly shouting, 'A gun! a gun!' The bear had bitten him in the side. I was thankful that it was no worse; I had thought it was a matter of life and death. I seized one gun, he another, and up we rushed, the mate with his gun after us. There was not much difficulty in knowing in what direction to turn, for from the rail on the starboard side came confused shouts of human voices, and from the ice below the gangway the sound of a frightful uproar of dogs. I tore out the tow-plug at the muzzle of my rifle, then up with the lever and in with the cartridge; it was a case of hurry. But, hang it! there is a plug in at this end too. I poked and poked, but could not get a grip of it. Peter screamed: 'Shoot, shoot! mine won't go off!' He stood clicking and clicking, his lock full of frozen vaseline again, while the

bear lay chewing at a dog just below us at the ship's side. Beside me stood the mate, groping after a tow-plug which he also had shoved down into his gun, but now he flung the gun angrily away and began to look round the deck for a walrus spear to stick the bear with. Our fourth man, Mogstad, was waving an empty rifle (he had shot away his cartridges), and shouting to some one to shoot the bear. Four men, and not one that could shoot, although we could have prodded the bear's back with our gun-barrels. Hansen, making a fifth, was lying in the passage to the chart-room, groping with his arm through a chink in the door for cartridges; he could not get the door to open because of Kvik's kennel. At last Johansen appeared and sent a ball straight down into the bear's hide. That did some good. The monster let go the dog and gave a growl. Another shot flashed and hissed down on the same spot. One more, and we saw the white dog the bear had under him jump up and run off, while the other dogs stood round, barking. Another shot still, for the animal began to stir a little. At this moment my plug came out, and I gave him a last ball through the head to make sure. The dogs had crowded round barking as long as he moved, but now that he lay still in death they drew back terrified. They probably thought it was some new ruse of the enemy. It was a little, thin, one-year-old bear that had caused all this terrible commotion.

"It seems this evening as if every one had some hesitation in going out on the ice unarmed. Our bayonet-knives have been brought out, and I am providing myself with one. I must say that I felt quite

certain that we should find no bears as far north as this in the middle of winter; and it never occurred to me, in making long excursions on the ice without so much as a penknife in my pocket, that I was liable to encounters with them. But, after Peter's experience, it seems as if it might be as well to have, at any rate, a lantern to hit them with. The long bayonet-knife shall accompany me henceforth."

"Wednesday, December 20th. Sverdrup and Lars in partnership have made a great bear-trap, which was put out on the ice to-day. As I was afraid of more dogs than bears being caught in it it, was hung from a gallows, too high for the dogs to jump up to the piece of blubber which hangs as bait right in the mouth of the trap. All the dogs spend the evening now sitting on the rail barking at this new man they see out there on the ice in the moonlight."

"Friday, December 22nd. A bear was shot last night. Jacobsen saw it first, during his watch. He shot at it. It made off; and he then went down and told about it in the cabin. Mogstad and Peter came on deck; Sverdrup was called, too, and came up a little later. They saw the bear on his way toward the ship again; but he suddenly caught sight of the gallows with the trap on the ice to the west, and went off there. He looked well at the apparatus, then raised himself cautiously on his hind-legs, and laid his right paw on the cross-beam just beside the trap, stared for a little, hesitating, at the delicious morsel, but did not at all like the ugly jaws round it. Sverdrup was by this time out at the deck-house, watching in the sparkling moonshine.

His heart was jumping—he expected every moment to hear the snap of his trap. But the bear shook his head suspiciously, lowered himself cautiously on to all-fours again and snuffed carefully at the wire that the trap was fastened by, following it along to where it was made fast to a great block of ice. He went round this, and saw how cleverly it was all arranged, then slowly followed the wire back, raised himself up as before, with his paw on the beam of the gallows, had a long look at the trap, and shook his head again, probably saying to himself: 'These wily fellows have planned this very cleverly for me.' Now he resumed his march to the ship. When he was within sixty paces of the bow Peter fired. The bear fell, but jumped up again and made off. Jacobsen, Sverdrup, and Mogstad all fired now, and he fell among some hummocks. He was flayed at once, and in the skin there was only the hole of one ball, which had gone through him from behind the shoulder-blade. Peter, Jacobsen, and Mogstad all claimed this ball. Sverdrup gave up his claim, as he had stood so far astern. Mogstad, seeing the bear fall directly after his shot, called out, 'I gave him that one'; Jacobsen swears that it was he that hit; and Bentzen, who was standing looking on, is prepared to take his oath anywhere that it was Peter's ball that did the deed. The dispute upon this weighty point remained unsettled during the whole course of the expedition."

"Sunday, December 24th. Christmas Eve. 67° of cold (−37° C.). Glittering moonlight and the endless stillness of the Arctic night. I took a solitary stroll over the ice. The first Christmas Eve, and how far away!

The observation shows us to be in 79° 11′ north latitude. There is no drift; 2′ farther south than six days ago."

There are no further particulars given of this day in the diary, but when I think of it, how clearly it all comes back to me! There was a peculiar elevation of mood on board that was not at all common among us. Every man's inmost thoughts were with those at home, but his comrades were not to know that, and so there was more joking and laughing than usual. All the lamps and lights we had on board were lit, and every corner of the saloon and cabins was brilliantly illuminated. The bill of fare for the day, of course, surpassed any previous one—food was the chief thing we had to hold festival with. The dinner was a very fine one indeed; so was the supper, and after it piles of Christmas cakes came on the table; Juell had been busy making them for several weeks. After that we enjoyed a glass of toddy and a cigar, smoking in the saloon being, of course, allowed. The culminating point of the festival came when two boxes with Christmas presents were produced. The one was from Hansen's mother, the other from his *fiancée*—Miss Fougner. It was touching to see the childlike pleasure with which each man received his gift—it might be a pipe or a knife or some little knick-knack—he felt that it was like a message from home.

"Thursday, December 28th. A little forward of the *Fram* there is a broad, newly formed open lane, in which she could lie crossways. It was covered with last night's ice, in which slight pressure began to-day. It is strange how indifferent we are to this pressure,

which was the cause of such great trouble to many earlier Arctic navigators. We have not so much as made the smallest preparation for possible accident, no provisions on deck, no tent, no clothing in readiness. This may seem like recklessness, but in reality there is not the slightest prospect of the pressure harming us; we know now what the *Fram* can bear. Proud of our splendid, strong ship, we stand on her deck watching the ice come hurtling against her sides, being crushed and broken there and having to go down below her, while new ice-masses tumble upon her out of the dark, to meet the same fate. Here and there, amid deafening noise, some great mass rises up and launches itself threateningly upon the bulwarks, only to sink down suddenly, dragged the same way as the others. But at times when one hears the roaring of tremendous pressure in the night, as a rule so deathly still, one cannot but call to mind the disasters that this uncontrollable power has wrought."

"Wednesday, January 3rd [1894]. The old lane about 1300 feet ahead of the *Fram* has opened again—a large rift, with a coating of ice and rime. As soon as ice is formed in this temperature the frost forces it to throw out its salinity on the surface, and this itself freezes into pretty salt flowers, resembling hoar-frost. The temperature is between 38° F. (−39° C.) and 40° F. (−40° C.) below zero, but when there is added to this a biting wind, with a velocity of from 9 to 16 feet per second, it must be allowed that it is rather 'cool in the shade.'"

"Thursday, January 4th. It seems as if the twilight

were increasing quite perceptibly now, but this is very possibly only imagination. I am in good spirits in spite of the fact that we are drifting south again. After all, what does it matter? Perhaps the gain to science will be as great, and after all, I suppose this desire to reach the North Pole is only a piece of vanity. I have now a very good idea of what it must be like up there. ('I like that!' say you.) Our deep water here is connected with, is a part of, the deep water of the Atlantic Ocean—of this there can be no doubt. And have not I found that things go exactly as I calculated they would whenever we get a favourable wind? Have not many before us had to wait for wind? And as to vanity—that is a child's disease, got over long ago. All calculations, with but one exception, have proved correct. We made our way along the coast of Asia, which many prophesied we should have great difficulty in doing. We were able to sail farther north than I had dared to hope for in my boldest moments, and in just the longitude I wished. We are closed in by the ice, also as I wished. The *Fram* has borne the ice-pressure splendidly, and allows herself to be lifted by it without so much as creaking, in spite of being more heavily loaded with coal, and drawing more water than we reckoned on when we made our calculations; and this after her certain destruction and ours was prophesied by those most experienced in such matters. I have not found the ice higher nor heavier than I expected it to be; and the comfort, warmth, and good ventilation on board are far beyond my expectations. Nothing is wanting in our equipment, and the food is quite exceptionally good.

"In one point only have my calculations proved incorrect, but unfortunately in one of the most important. I pre-supposed a shallow Polar Sea, the greatest depth known in these regions up till now being 80 fathoms, found by the *Jeannette*. I reasoned that all currents would have a strong influence in the shallow Polar Sea, and that on the Asiatic side the current of the Siberian rivers would be strong enough to drive the ice a good way north. But here I already find a depth which we cannot measure with all our line, a depth of certainly 1000 fathoms, and possibly double that. This at once upsets all faith in the operation of a current; we find either none, or an extremely slight one; my only trust now is in the winds. Columbus discovered America by means of a mistaken calculation, and even that not his own; heaven only knows where my mistake will lead us. Only I repeat once more—the Siberian driftwood on the coast of Greenland cannot lie, and the way it went we must go."

"Monday, January 15th. There was pressure forward both this morning and toward noon, but we heard the loudest sounds from the north. Sverdrup, Mogstad, and Peter went in that direction and were stopped by a large open channel. Peter and I afterward walked a long distance N.N.E., past a large opening that I had skirted before Christmas. It was shining, flat ice, splendid for sledging on, always better the farther north we went. The longer I wander about and see this sort of ice in all directions, the more strongly does a plan take hold of me that I have long had in my mind. It would be possible to get with dogs and sledges over

this ice to the Pole, if one left the ship for good and made one's way back in the direction of Franz Josef Land, Spitzbergen, or the west coast of Greenland. It might almost be called an easy expedition for two men.

"But it would be too hasty to go off in spring. We must first see what kind of drift the summer brings. And as I think over it, I feel doubtful if it would be right to go off and leave the others. Imagine if I came home and they did not! Yet it was to explore the unknown Polar regions that I came; it was for that the Norwegian people gave their money; and surely my first duty is to do that if I can. I must give the drift plan a longer trial yet, but if it takes us in a wrong direction, then there is nothing for it but to try the other, come what may."

"Tuesday, January 23rd. When I came on deck this morning Caiaphas was sitting out on the ice on the port quarter, barking incessantly to the east. I knew there must be something there, and went off with a revolver, Sverdrup following with one also. When I got near the dog he came to meet me, always wriggling his head round to the east and barking; then he ran on before us in that direction; it was plain that there was some animal there, and of course it could only be a bear. The full moon stood low and red in the north, and sent its feeble light obliquely across the broken ice-surface. I looked out sharply in all directions over the hummocks, which cast long, many shaped shadows; but I could distinguish nothing in this confusion. We went on, Caiaphas first, growling and barking and pricking his ears, and I after him, expecting every moment to see

a bear loom up in front of us. Our course was eastward along the opening. The dog presently began to go more cautiously and straighter forward; then he stopped making any noise except a low growl—we were evidently drawing near. I mounted a hummock to look about, and caught sight among the blocks of ice of something dark, which seemed to be coming toward us. 'There comes a black dog,' I called. 'No, it is a bear,' said Sverdrup, who was more to the side of it and could see better. I saw now, too, that it was a large animal, and that it had only been its head that I had taken for a dog. It was not unlike a bear in its movements, but it seemed to me remarkably dark in colour. I pulled the revolver out of the holster and rushed forward to empty all its barrels into the creature's head. When I was just a few paces from it, and preparing to shoot, it raised its head and I saw that it was a walrus, and that same moment it threw itself sideways into the water. There we stood. To shoot at such a fellow with a revolver would be of as much use as squirting water at a goose. The great black head showed again immediately in a strip of moonlight on the dark water. The animal took a long look at us, disappeared for a little, appeared again nearer, bobbed up and down, blew, lay with its head under water, shoved itself over toward us, raised its head again. It was enough to drive one mad: if we had only had a harpoon I could easily have stuck it into its back. Yes, if we had had—and back to the *Fram* we ran as fast as our legs would carry us, to get harpoon and rifle. But the harpoon and line were stored away, and were not to be had at once; who could

have guessed that they would be needed here? The harpoon point had to be sharpened, and all this took time. And for all our searching afterward east and west along the opening, no walrus was to be found."

"Saturday, January 27th. The days are turning distinctly lighter now. Severe pressure has been going on this evening. It began at 7.30 astern in the opening, and went on steadily for two hours. It sounded as if a roaring waterfall were rushing down upon us with a force that nothing could resist. One heard the big floes crashing and breaking against each other. They were flung and pressed up into high walls, which must now stretch along the whole opening east and west, for one hears the roar the whole way. It is coming nearer just now; the ship is getting violent shocks; it is like waves in the ice. They come on us from behind, and move forward. We stare out into the night, but can see nothing, for it is pitch-dark. Now I hear cracking and shifting in the hummock on the starboard quarter; it gets louder and stronger, and extends steadily. At last the waterfall roar abates a little. It becomes more unequal; there is a longer interval between each shock. I am so cold that I creep below.

"Most violent pressure is beginning again. I must go on deck and look at it. The loud roar meets one as one opens the door. It is coming from the bow now, as well as from the stern. It is clear that pressure-ridges are being thrown up in both openings, so if they reach us we shall be taken by both ends and lifted lightly and gently out of the water. There is pressure near us on all sides. Creaking has begun in the old

hummock on the port quarter; it is getting louder, and, so far as I can see, the hummock is slowly rising. A lane has opened right across the large floe on the port side; you can see the water, dark as it is. Now both pressure and noise get worse and worse; the ship shakes, and I feel as if I myself were being gently lifted with the stern-rail, where I stand gazing out at the welter of ice-masses, that resemble giant snakes writhing and twisting their great bodies out there under the quiet, starry sky, whose peace is only broken by one aurora serpent waving and flickering restlessly in the north-east."

"Sunday, January 28th. Strange to say, there has been no pressure since twelve o'clock last night; the ice seems perfectly quiet. The pressure-ridge astern showed what violent packing yesterday's was; in one place its height was 18 or 19 feet above the surface of the water; floe-ice 8 feet thick was broken, pressed up in square blocks, and crushed to pieces. At one point a huge monolith of such floe-ice rose high into the air. Beyond this pressure-wall there was no great disturbance to be detected."

"Friday, February 2nd. High festival to-day in honour of the 80th degree, beginning with fresh rye-bread and cake for breakfast. Took a long walk to get up an appetite for dinner. According to this morning's observation, we are in 80° 10′ N. lat. and 132° 10′ E. long. Hurrah! Well sailed! I had offered to bet heavily that we had passed 80°, but no one would take the bet."

"Saturday, February 10th. Though that wind the

other day did not come to much after all, we still hoped that we had made good way north, and it was consequently an unwelcome surprise when yesterday's observation showed our latitude to be 79° 57′ N., 13′ farther south instead of farther north. It is extraordinary how little inured one gets to disappointments; the longing begins again; and again attainment seems so far off, so doubtful. And this though I dream at nights just now of getting out of the ice west of Iceland. Hope is a rickety craft to trust oneself to. I had a long, successful drive with the dogs to-day."

"Friday, February 16th. Hurrah! A meridian observation to-day shows 80° 1′ N. lat., so that we have come a few minutes north since last Friday, and that in spite of constant northerly winds since Monday. There is something very singular about this. Is it, as I have thought all along from the appearance of the clouds and the haziness of the air, that there has been south wind in the south, preventing the drift of the ice that way, or have we at last come under the influence of a current? That shove we got to the south lately in the face of southerly winds was a remarkable thing, and so is our remaining where we are now in spite of the northerly ones. It would seem that new powers of some kind must be at work.

"To-day another noteworthy thing happened, which was that about midday we saw the sun, or, to be more correct, an image of the sun, for it was only a mirage. A peculiar impression was produced by the sight of that glowing fire lit just above the outermost edge of the ice. According to the enthusiastic descriptions given by

many Arctic travellers of the first appearance of this god of life after the long winter night, the impression ought to be one of jubilant excitement; but it was not so in my case. We had not expected to see it for some days yet, so that my feeling was rather one of pain, of disappointment, that we must have drifted farther south than we thought. So it was with pleasure I soon discovered that it could not be the sun itself. The mirage was at first like a flattened-out glowing red streak of fire on the horizon; later there were two streaks, the one above the other, with a dark space between; and from the main top I could see four, or even five such horizontal lines directly over one another, and all of equal length; as if one could only imagine a square dull-red sun with horizontal dark streaks across it. An astronomical observation we took in the afternoon showed that the sun must in reality have been 2° 22′ below the horizon at noon; we cannot expect to see its disk above the ice before Tuesday at the earliest: it depends on the refraction, which is very strong in this cold air. All the same, we had a small sun-festival this evening, on the occasion of the appearance of its image—a treat of figs, bananas, raisins, almonds, and gingerbread."

"Sunday, February 18th. We are now in about 80° N. lat., in September we were in 79°; that is, let us say, one degree for five months. If we go on at this rate we shall be at the Pole in forty-five, or say fifty, months, and in ninety or one hundred months at 80° N. lat. on the other side of it, with probably some prospect of getting out of the ice, and home in a month or two more. At best, if things go on as they are doing now, we shall be

home in eight years. I remember Brogger writing before I left, when I was planting small bushes and trees in the garden for future generations, that no one knew what length of shadow these trees would cast by the time I came back. Well, they are lying under the winter snow now, but in spring they will shoot and grow again—how often? Oh! at times this inactivity crushes one's very soul; one's life seems as dark as the winter night outside; there is sunlight upon no part of it except the past and the far, far distant future. I feel as if I *must* break through this deadness, this inertia, and find some outlet for my energies."

"Friday, March 9th. The net-line pointed slightly south-west this morning; but the line attached to a cheese, which was only hanging a few fathoms below the ice to thaw faster, seemed to point in the opposite direction. Had we got a southerly current together with the wind now? H'm! in that case something must come of it! Or was it, perhaps, only the tide setting that way?

"Still the same northerly wind; we are steadily bearing south. This, then, is the change I hoped the March equinox would bring! We have been having northerly winds for more than a fortnight. I cannot conceal from myself any longer that I am beginning to despond. Quietly and slowly, but mercilessly, one hope after the other is being crushed and . . . have I not a right to be a little despondent? I long unutterably after home, perhaps I am drifting away farther from it, perhaps nearer; but anyhow it is not cheering to see the realisation of one's plans again and again delayed, if not

annihilated altogether, in this tedious and monotonously killing way. Nature goes her age-old round impassively; summer changes into winter; spring vanishes away, autumn comes, and finds us still a mere chaotic whirl of daring projects and shattered hopes. As the wheel revolves, now the one and now the other comes to the top—but memory betweenwhiles lightly touches her ringing silver chords—now loud like a roaring waterfall, now low and soft like far-off sweet music. I stand and look out over this desolate expanse of ice with its plains and heights and valleys, formed by the pressure arising from the shifting tidal currents of winter. The sun is now shining over them with his cheering beams. In the middle lies the *Fram*, hemmed in immovably. When, my proud ship, will you float free in the open water again?"

"Saturday, March 10th. The line shows a drift northward; now, too, in the afternoon, a slight southerly breeze has sprung up. As usual it has done me good to put my despondency on paper and get rid of it. To-day I am in good spirits again, and can indulge in happy dreams of a large and high land in the north, with mountains and valleys, where we can sit under the mountain wall, roast ourselves in the sun, and see the spring come. And over its inland ice we can make our way to the very Pole."

"Friday, March 16th. Sverdrup has of late been occupied in making sails for the ship's boats. To-day there was a light south-westerly breeze, so we tried one of the sails on two hand-sledges lashed together. It is first-rate sailing, and does not require much wind to

make them glide along. This would be a great assistance if we had to go home over the ice."

"Monday, April 30th. Drifting northward. Yesterday observations gave 80° 42′, and to-day 80° 44½′. The wind steady from the south and south-east.

"It is lovely spring weather. One feels that spring-time must have come, though the thermometer denies it. 'Spring cleaning' has begun on board; the snow and ice along the *Fram's* sides are cleared away, and she stands out like the crags from their winter covering decked with the flowers of spring. The snow lying on the deck is little by little shovelled overboard; her rigging rises up against the clear sky clean and dark, and the gilt trucks at her mastheads sparkle in the sun. We go and bathe ourselves in the broiling sun along her warm sides, where the thermometer is actually above freezing-point, smoke a peaceful pipe, gazing at the white spring clouds that lightly fleet across the blue expanse. Some of us perhaps think of spring-time yonder at home, when the birch-trees are bursting into leaf."

V

THE SPRING AND SUMMER OF 1894

Our progress as the spring advanced grew somewhat better than it had been during the winter, but on the whole it was always the same sort of crablike locomotion; for each time we made a long stretch to the north, a longer period of reaction was sure to follow. It was, in the opinion of one of our number, who was somewhat of a politician, a constant struggle between the Left and Right, between Progressionists and Recessionists. After a period of Left wind and a glorious drift northward, as a matter of course the 'Radical Right' took the helm, and we remained lying in dead water or drifted backward, thereby putting Amundsen into a very bad temper. It was a remarkable fact that during the whole time, the *Fram's* bow turned toward the south, generally S. $\frac{1}{4}$ W., and shifted but very little during the whole drift. As I say on May 14th: "She went backward toward her goal in the north, with her nose ever turned to the south. It is as though she shrank from increasing her distance from the world; as though she were longing for southern shores, while some invisible power is drawing her on toward the unknown. Can it be an ill omen, this backward advance toward the interior of the Polar Sea? I cannot think it; even the crab ultimately reaches its goal."

The plan already alluded to of travelling over the ice

with dogs and sledges occupied me a good deal, and during my daily expeditions, partly on snowshoes, partly with dogs, my attention was constantly given to the condition of the ice and our prospects of being able to make our way over it. During April it was specially well adapted for using dogs. The surface was good, as the sun's power had made it smoother than the heavy drift-snow earlier in the winter; besides, the wind had covered the pressure-ridges pretty evenly, and there were not many crevasses or channels in the ice, so that one could proceed for miles without much trouble from them. In May, however, a change set in. So early as May 8th the wind had broken up the ice a good deal, and now there were lanes in all directions, which proved a great obstacle when I went out driving with the dogs. The temperature, however, was still so low that the channels were quickly frozen over again and became passable; but later on in the month the temperature rose, so that ice was no longer so readily formed on the water, and the channels became ever more and more numerous.

On June 13th I write: "The ice gets softer and softer every day, and large pools of water are formed on the floes all around us. In short, the surface is abominable. The snowshoes break through into the water everywhere. Truly one would not be able to get far in a day now should one be obliged to set off toward the south or west. It is as if every outlet were blocked, and here we stick—we stick. Sometimes it strikes me as rather remarkable that none of our fellows have become alarmed, even when we are bearing farther and farther

northward, farther and farther into the unknown; but there is no sign of fear in any one of them. All look gloomy when we are bearing south or too much to the west, and all are beaming with joy when we are drifting to the northward, the farther the better. Yet none of them can be blind to the fact that it is a matter of life and death, if anything of what nearly every one prophesied should now occur. Should the ship be crushed in this ice and go to the bottom, like the *Jeannette*, without our being able to save sufficient supplies to continue our drift on the ice, we should have to turn our course to the south, and then there would be little doubt as to our fate."

Later on—in July—the surface was even worse. The floes were everywhere covered with slush, with water underneath, and on the pressure-ridges and between the hummocks where the snow-drifts were deep one would often sink in up to the middle, not even the snowshoes bearing one up in this soft snow. Later on in July matters improved, the snow having gradually melted away, so that there was a firmer surface of ice to go on.

But large pools of water now formed on the ice-floes. Already on the 8th and 9th of June such a pool had begun to appear round the ship, so that she lay in a little lake of fresh water, and we were obliged to make use of a bridge in order to reach a dry spot on the ice. Some of these fresh-water pools were of respectable dimensions and depth. There was one of these on the starboard side of the ship, so large that in the middle of July we could row and sail on it with the boats.

In the summer when we wanted to make an excursion

over the ice, in addition to such pools we met with lanes in the ice in all directions, but as a rule could easily cross them by jumping from one loose floe to another, or leaping right across at narrow places.

The open spaces, the lanes, and the rifts in the ice are, of course, produced, like the pressure and packing, by the shifting winds and the tidal currents that set the ice drifting first in one direction, then in another. And they best prove, perhaps, how the surface of the Polar Sea must be considered as one continuous mass of ice-floes in constant motion, now frozen together, now torn apart, or crushed against each other.

During the whole of our drift I paid great attention to this ice, not only with respect to its motion, but to its formation and growth as well. From measurements that were constantly being made, it appeared that the ice which was formed during the autumn in October or November continued to increase in size during the whole of the winter and out into the spring, but more slowly the thicker it became. On April 10th it was about 2·31 metres; April 21st, 2·41 metres; May 5th, 2·45 metres; May 31st, 2·52 metres; June 9th, 2·58 metres. It was thus continually increasing in bulk, notwithstanding that the snow now melted quickly on the surface, and large pools of fresh water were formed on the floes. On June 20th the thickness was the same, although the melting on the surface had now increased considerably. On July 4th the thickness was 2·57 metres. On July 10th I was amazed to find that the ice had increased to 2·76 metres, notwithstanding that it would now diminish several centimetres daily from

surface melting. I bored in many places, but found it everywhere the same—a thin, somewhat loose, ice mass lay under the old floe. I first thought it was a thin ice-floe that had got pushed under, but subsequently discovered that it was actually a new formation of fresh-water ice on the lower side of the old ice, due to the layer of fresh water of about 9 feet 9 inches (3 metres) in depth, formed by the melting of the snow on the ice. Owing to its lightness this warm fresh water floated on the salt sea-water, which was at a temperature of about 29·3° F. (−1·5° C.) on its surface. Thus, by contact with the colder sea-water, the fresh water became cooler, and so a thick crust of ice was formed on the fresh water, where it came in contact with the salt water lying underneath it. It was this ice crust then that augmented the thickness of the ice on its under side. Later on in the summer, however, the ice diminished somewhat, owing to melting on the surface. On July 23rd the old ice was only 2·33 metres, and with the newly formed layer 2·49 metres. On August 10th the thickness of the old ice had decreased to 1·94 metres, and together the aggregate thickness to 3·17 metres. On August 22nd the old ice was 1·86 metres, and the aggregate thickness 3·06 metres. On September 3rd the aggregate thickness was 2·02 metres, and on September 30th 1·98 metres. On October 3rd it was the same; the thickness of the old ice was then 1·75 metres. On October 12th the aggregate thickness was 2·08 metres, while the old ice was 1·8 metres. On November 10th it was still about the same, with only a slight tendency to increase. Further on in November and in December it increased

quite slowly. On December 11th the aggregate thickness reached 2·11 metres. On January 3rd, 1895, 2·32 metres; January 10th, 2·48 metres; February 6th, 2·59 metres. Hence it will be seen that the ice does not attain any enormous thickness by direct freezing. The packing caused by pressure can, however, produce blocks and floes of a very different size. It often happens that the floes get shoved in under each other in several layers, and are frozen together so as to appear like one originally continuous mass of ice. Thus the *Fram* had got a good bed under her.

The temperature on the ice in summer is about thawing-point, but gradually as the winter cold comes on, it, of course, falls rapidly on the surface, whence the cold slowly penetrates deeper and deeper down toward the lower surface, where it naturally keeps at an even temperature with the underlying water. Observations of the temperature of the ice in its different layers were constantly taken in order to ascertain how quickly this cooling-down process of the ice took place during the winter, and also how the temperature rose again toward spring. The lowest temperature of the ice occurred in March and the beginning of April, when at 1·2 metres it was about 3·2° F. (−16° C.), and at 0·8 metre about 22° F. below zero (−30° C.). After the beginning of April it began to rise slowly.

At these low temperatures the ice became very hard and brittle, and was readily cracked or broken up by a blow or by packing. In the summer, on the other hand, when its temperature was near melting-point, the ice became tough and plastic, and was not so readily broken

up under packing. This difference between the condition of the ice in summer and winter was apparent also to the ear, as the ice-packing in winter was always accompanied by the frequently mentioned loud noises, while the packing of the tough summer ice was almost noiseless, so that the most violent convulsions might take place close to us without our noticing them.

In the immediate vicinity of the *Fram* the ice remained perfectly at rest the whole year through, and she was not at this time exposed to any great amount of pressure; she lay safe and secure on the ice-floe to which she was firmly frozen; and gradually as the surface of the ice thawed under the summer sun she rose up higher and higher. In the autumn she again began to sink a little, either because the ice gave way under her weight, or because it melted somewhat on the under surface, so that it no longer had so much buoyancy as before.

Meanwhile, life on board went on in its usual way. Now that we had daylight there was of course more work of various descriptions on the ice than had been the case during the winter. I have already alluded more than once to our unsuccessful endeavours to reach the bottom by sounding. Unfortunately we were not prepared for such great depths, and had not brought any deep-sea sounding apparatus with us. We had, therefore, to do the best we could under the circumstances; and that was to sacrifice one of the ship's steel cables in order to make a lead-line. It was not difficult to find sufficient space on the ice for a rope-walk, and although a temperature of from 22° F. below zero

(−30° C.) to 40° F. below zero (−40° C.) is not the pleasantest in which to manipulate such things as steel wire, yet for all that the work went on well. The cable was unlaid into its separate strands, and a fresh, pliant lead-line manufactured by twisting two of these strands together. In this way we made a line of between 4000 to 5000 metres (2150 to 2700 fathoms) long, and could now at last reach the bottom. The depth proved to range between 3300 and 3900 metres (1800 to 2100 fathoms).

This was a remarkable discovery, for, as I have frequently mentioned, the unknown polar basin has always been supposed to be shallow, with numerous unknown lands and islands.

From this assumption of a shallow Polar Sea it was concluded that the regions about the Pole had formerly been covered with an extensive tract of land, of which the existing islands are simply the remains. This extensive tract of polar land was furthermore assumed to have been the nursery of many of our animal and plant forms, whence they had found their way to lower latitudes. These conjectures now appear to rest on a somewhat infirm basis.

This great depth indicates that here, at all events, there has not been land in any very recent geological period; and this depth is, no doubt, as old as the depth of the Atlantic Ocean, of which it is almost certainly a part.

We had not expected to meet with much bird life in these desolate regions. Our surprise, therefore, was not small when on Whit Sunday, May 13th, a gull paid

us a visit. After that date we regularly saw birds of different kinds in our vicinity, till at last it became a daily occurrence, to which we did not pay any particular attention. For the most part they were ice mews, kittiwakes, fulmars, and now and then a blue gull, a herring gull, or a black guillemot; once or twice we also saw a skua (for instance, on July 14th). On July 21st we had a visit from a snow-bunting.

On August 3rd a remarkable occurrence took place, we were visited by the Arctic rose gull. I wrote as follows about it in my diary: "To-day my longing has at last been satisfied. I have shot Ross's gull, [1] three specimens in one day. This rare and mysterious inhabitant of the unknown north, which is only occasionally seen, and of which no one knows whence it cometh or whither it goeth, which belongs exclusively to the world to which the imagination aspires, is what, from the first moment I saw these tracts, I had always hoped to discover, as my eyes roamed over the lonely plains of ice. And now it came when I was least thinking of it. I was out for a little walk on the ice by the ship, and as I was sitting down by a hummock my eyes wandered northward and lit on a bird hovering over the great pressure-mound away to the north-west. At first I took it to be a kittiwake, but soon discovered it rather resembled the skua by its swift flight, sharp wings, and pointed tail. When I had got my gun there were two of them together flying round and round the ship. I now got a closer view of them and discovered that they

[1] This gull is often called by this name, after its first discoverer. It has acquired its other name, 'rose gull,' from its pink colour.

were too light-coloured to be skuas. They were by no means shy, but continued flying about close to the ship. On going after them on the ice I soon shot one of them, and was not a little surprised on picking it up to find it was a little bird about the size of a snipe; the mottled back, too, reminded me also of that bird. Soon after this I shot the other. Later in the day there came another which was also shot. On picking this one up I found it was not quite dead, and it vomited up a couple of large shrimps, which it must have caught in some channel or other. All three were young birds, about 12 inches in length, with dark, mottled-grey plumage on the back and wings; the breast and under-side white, with a scarcely perceptible tinge of orange-red, and round the neck a dark ring sprinkled with grey." At a somewhat later age this mottled plumage disappears; they then become blue on the back, with a black ring round the neck, while the breast assumes a delicate pink hue.

While time was passing on the plan I had been revolving in my mind during the winter was ever uppermost in my thoughts—the plan, that is to say, of exploring the unknown sea apart from the track in which the *Fram* was drifting. I kept an anxious eye upon the dogs, for fear anything should happen to them, and also to see that they continued in good condition, for all my hopes centred in them. Several of them, indeed, had been bitten to death, and two had been killed by bears; but there were still twenty-six remaining, and as a set-off against our losses we had the puppies, eight of which had been permitted to live. As spring advanced they

were allowed to roam the deck, but on May 5th their world was considerably extended. I wrote thus: "In the afternoon we let the puppies loose on the ice, and Kvik at once took long expeditions with them to familiarize them with their surroundings. First she introduced them to our meteorological apparatus, then to the bear-trap, and after that to different pressure-mounds. They were very cautious at first, staring timidly all around, and venturing out very slowly, a step at a time from the ship's side; but soon they began to run riot in their newly discovered world."

"Sunday, June 10th. Oddly enough we have had no cases of snow-blindness on board, with the exception of the doctor, who, a couple of days ago, after we had been playing at ball, got a touch of it in the evening. The tears poured from his eyes for some time, but he soon recovered. Rather a humiliating trick of fate that he should be the first to suffer from this ailment."

Subsequently we had a few isolated cases of slight snow-blindness, so that one or two of our men had to go about with dark spectacles; but it was of little importance and was due to their not thinking it worth while to take the necessary precautions.

"Sunday, July 22nd. I pass the day at the microscope. I am now busied with the diatoms and algæ of all kinds that grow on the ice in the uppermost fresh stratum of the sea. These are undeniably most interesting things, a whole new world of organisms that are carried off by the ice from known shores across the unknown Polar Sea, there to awaken every summer, and develop into life and bloom. Yes, it is very interesting

work, but yet there is not that same burning interest as of old, although the scent of oil of cloves, Canada balsam, and wood-oil awakens many dear reminiscences of that quiet laboratory at home, and every morning as I come in here the microscope and glasses and colours on the table invite me to work. But though I work indefatigably day after day till late in the night it is mostly duty work, and I am not sorry when it is finished to go and lie for some few hours in my berth reading a novel and smoking a cigar. With what exultation would I not throw the whole aside, spring up, and lay hold of real life, fighting my way over ice and sea with sledges, boats, or kayaks. It is more than true that it is 'easy to live a life of battle'; but here there is neither storm nor battle, and I thirst after them. I long to enlist titanic forces and fight my way forward—that would be living! But what pleasure is there in strength when there is nothing for it to do? Here we drift forward, and here we drift back, and now we have been two months on the same spot.

"Everything, however, is being got ready for a possible expedition, or for the contingency of its becoming necessary to abandon the ship. All the hand-sledges are lashed together, and the iron fittings carefully seen to. Six dog-sledges are also being made, and to-morrow we shall begin building kayaks ready for the men. They are easy to draw on hand-sledges in case of a retreat over the ice without the ship. For a beginning we are making kayaks to hold two men each. I intend to have them about 12 feet long, 3 feet wide, and 18 inches in depth. Six of these are to be made. They

are to be covered with sealskin or sailcloth, and to be decked all over, except for two holes—one for each man."

The world of organisms I above alluded to was the subject of special research through the short summer, and in many respects was quite remarkable. When the sun's rays had gained power on the surface of the ice, and melted the snow, so that pools were formed, there was soon to be seen at the bottom of these pools small yellowish-brown spots, so small that at first one hardly noticed them. Day by day they increased in size, and absorbing, like all dark substances, the heat of the sun's rays, they gradually melted the underlying ice and formed round cavities, often several inches deep. These brown spots were the above mentioned algæ and diatoms. They developed speedily in the summer light, and would fill the bottoms of the cavities with a thick layer. But there were not plants only; the water also teemed with swarms of animalcules, mostly infusoria and flagellata, which subsisted on the plants. I actually found bacteria—even these regions are not free from them!

VI

SECOND AUTUMN IN THE ICE

Allusion has several times been made to the fact that we had, during the course of the summer, got everything into readiness for the possibility of having to make our way home across the ice. Six double kayaks had been built, the hand-sledges were in good order, and careful calculation had been made of the amount of food, clothing, fuel, etc., that it would be necessary to carry. But I had also quietly begun to make preparations for my own meditated expedition north. In August I had begun to work at a single kayak, the framework made of bamboo. I had said nothing about my plan yet, except a few words to Sverdrup; it was impossible to tell how far north the drift would take us, and so many things might happen before spring.

"Thursday, September 6th. 81° 13·7′ N. lat. Why should not this winter carry the *Fram* west to some place north of Franz Josef Land? . . . and then my time has come, and off I go with dogs and sledges—to the north. My heart beats with joy at the very thought of it. The winter shall be spent in making every preparation for that expedition, and it will pass quickly.

"I have already spent much time on these preparations. I think of everything that must be taken, and how it is to be arranged, and the more I look at the thing from all points of view, the more firmly convinced

do I become that the attempt will be successful, if only the *Fram* can get north in reasonable time, not too late in the spring. If she could just reach 84° or 85°, then I should be off in the end of February or the first days of March, as soon as the daylight comes, after the long winter night, and the whole would go like a dance. Only four or five months, and the time for action will have come again. What joy! When I look out over the ice now it is as if my muscles quivered with longing to be striding off over it in real earnest—fatigue and privation will then be a delight. It may seem foolish that I should be determined to go off on this expedition, when, perhaps, I might do more important work quietly here on board. But the daily observations will be carried on exactly the same."

"Sunday, September 9th. 81° 4′ N. lat. The midnight sun disappeared some days ago, and already the sun sets in the north-west; it is gone by ten o'clock in the evening, and there is once more a glow over the eternal white. Winter is coming fast.

"Pettersen, who is cook this week, came in here this evening, as usual, to get the bill of fare for next day. When his business was done he stood for a minute, and then said that he had had such a strange dream last night; he had wanted to be taken as cook with a new expedition, but Dr Nansen wouldn't have him.

"'And why not?'

"'Well, this was how it was. I dreamed that Dr Nansen was going off across the ice to the Pole with four men, and I asked to be taken, but you said that you didn't need a cook on this expedition, and I thought

that was queer enough, for you would surely want food on this trip as well. It seemed to me that you had ordered the ship to meet you at some other place; anyhow you were not coming back here, but to some other land. It's strange that one can lie and rake up such a lot of nonsense in one's sleep.'

"'That was perhaps not such very great nonsense, Pettersen; it is quite possible that we might have to make such an expedition, but if we did, we should certainly not come back to the *Fram*.'

"'Well, if that happened, I would ask to go, sure enough; for it's just what I should like. I'm no great snowshoer, but I would manage to keep up somehow.'

"'That's all very well; but there's a great deal of weary, hard work on a journey like that; you needn't think it's all pleasure.'

"'No, no one would expect that; but it would be all right if I might only go.'

"'But there might be worse than hardships, Pettersen. It would more than likely mean risking your life.'

"'I don't care for that either. A man has got to die sometime.'

"'Yes, but you don't want to shorten your life?'

"'Oh, I would take my chance of that. You can lose your life at home, too, though, perhaps, not quite so easily as here. But if a man was always to be thinking about that he would never do anything.'

"'That's true. Anyhow he would not need to come on an expedition like this. But remember that a journey northward over the ice would be no child's play.'

"'No, I know that well enough, but if it was with you

I shouldn't be afraid. It would never do if we had to manage alone. We'd be sure to go wrong; but it's quite a different thing, you see, when there is one to lead that you know has been through it all before.'

"It is extraordinary the blind faith such men have in their leader! I believe they would set off without a moment's reflection if they were asked to join in an expedition to the Pole now, with black winter at the door. It is grand as long as the faith lasts, but God be merciful to him on the day that it fails!"

"Thursday, September 27th. Have determined that, beginning from to-morrow, every man is to go out snowshoeing two hours daily, from eleven to one, so long as the daylight lasts. It is necessary. If anything happened that obliged us to make our way home over the ice I am afraid some of the company would be a terrible hindrance to us, unpractised as they are now. Several of them are first-rate snowshoers, but five or six of them would soon be feeling the pleasures of learning; if they had to go out on a long course, and without snowshoes, it would be all over with us.

"After this we used to go out regularly in a body. Besides being good exercise, it was also a great pleasure; every one seemed to thrive on it, and they all became accustomed to the use of the shoes on this ground, even though they often got them broken in the unevennesses of the pressure-ridges; we just patched and riveted them together to break them again."

"Monday, October 1st. We tried a hand-sledge to-day with a load of 250 lbs. It went along easily, and yet was hard to draw, because the snowshoes were apt to

slip to the side on the sort of surface we had. I almost believe that Indian snowshoes would be better on this ground, where there are so many knobs and smooth hillocks to draw the sledges over. When Amundsen first began to pull the sledge he thought it was nothing at all; but when he had gone on for a time he fell into a fit of deep and evidently sad thought, and went silently home. When he got on board he confided to the others that if a man had to draw a load like that, he might just as well lie down at once—it would come to the same thing in the end. That is how practice is apt to go. In the afternoon I yoked three dogs to the same little sledge with the 250 lbs. load, and they drew it along as if it were nothing at all."

"Monday, November 5th. As I was sitting at work last night I heard a dog on the deck howling fearfully. I sprang up and found it was one of the puppies, that had touched an iron bolt with its tongue and was frozen fast to it. There the poor beast was, straining to get free, with its tongue stretched out so far that it looked like a thin rope proceeding out of its throat; and it was howling piteously. Bentzen, whose watch it was, had come up, but scarcely knew what to do. He took hold of it, however, by the neck, and held it close to the bolt, so that its tongue was less extended. After having warmed the bolt somewhat with his hand he managed to get the tongue free. The poor little puppy seemed overjoyed at its release, and, to show its gratitude, licked Bentzen's hand with its bloody tongue, and seemed as if it could not be grateful enough to its deliverer. It is to be hoped that it will be some time before this puppy,

at any rate, gets fast again in this way; but such things happen every now and then."

"Friday, November 16th. In the forenoon I went out with Sverdrup on snowshoes in the moonlight, and we talked seriously of the prospects of our drift and of the proposed expedition northward over the ice in the spring. In the evening we went into the matter more thoroughly in his cabin. I stated my views, in which he entirely coincided. I have of late been meditating a great deal on what is the proper course to pursue, supposing the drift does not take us so far north by the month of March as I had anticipated. But the more I think of it, the more firmly am I persuaded that it is the thing to do. For if it be right to set out at 85°, it must be no less right to set out at 82° or 83°. In either case we should penetrate into more northerly regions than we should otherwise reach, and this becomes all the more desirable if the *Fram* herself does not get so far north as we had hoped. If we cannot actually reach the Pole, why, we must turn back before reaching it. The main consideration, as I must constantly repeat, is not to reach that exact mathematical point, but to explore the unknown parts of the Polar Sea, whether these be near to or more remote from the Pole. I said this before setting out, and I must keep it continually in mind. Certainly there are many important observations to be made on board during the further drift of the ship, many which I would dearly like to carry on myself; but all the more important of these will be made equally well here, even though two of our number leave the ship; and there can scarcely be any doubt that the

observations we shall make farther north will not many times outweigh in value those I could have made during the remainder of the time on board. So far, then, *it is absolutely desirable that we set out.*

"Then comes the question: What is the best time to start? That the spring, March at the latest, is the only season for such a venture there can be no doubt at all. But shall it be next spring? Suppose, at the worst, we have not advanced farther than to 83° N. lat. and 110° E. long.; then something might be said for waiting till the spring of 1896; but I cannot but think that we should thus in all probability let slip the propitious moment. The drifting could not be so wearingly slow but that after another year had elapsed we should be far beyond the point from which the sledge expedition ought to set out. If I measure the distance we have drifted from November of last year with the compasses and mark off the same distance ahead, by next November we should be north of Franz Josef Land, and a little beyond it. It is conceivable, of course, that we were no farther advanced in February 1896 either; but it is more likely from all I can make out, that the drift will increase rather than diminish as we work westward, and consequently in February 1896 we should have got too far; while, even if one could imagine a better starting-point than that which the *Fram* will probably offer us by March 1st, 1895, it will, at all events, be a possible one. It must consequently be the safest plan *not to wait for another spring.*

"Such then are the prospects before us of pushing through. The distance from this proposed starting-

point to Cape Fligely, which is the nearest known land, I set down at about 370 miles,[1] consequently not much more than the distance we covered in Greenland, and that would be easy work enough over this ice, even if it did become somewhat bad toward land. If once a coast is reached any reasonable being can surely manage to subsist by hunting, whether large or small game, whether bears or sandhoppers. Thus we can always make for Cape Fligely or Petermann's Land, which lies north of it, if our situation becomes untenable. The distance will, of course, be increased the farther we advance northward, but at no point whatever between here and the Pole is it greater than we can and will manage, with the help of our dogs. 'A line of retreat' is therefore secured, though there are those doubtless who hold that a barren coast, where you must first scrape your food together before you can eat it, is a poor retreat for hungry men; but that is really an advantage, for such a retreat would not be too alluring. A wretched invention, forsooth, for people who wish to push on, is a 'line of retreat,' an everlasting inducement to look behind, when they should have enough to do in looking ahead.

"But now for the expedition itself. It will consist of twenty-eight dogs, two men, and 2100 lbs. of provisions and equipments. The distance to the Pole from 83° is 483 miles. Is it too much to calculate that we may be able to accomplish that distance in 50 days? I do not of course know what the staying powers of the dogs may

[1] There must be an error here, as the distance to Cape Fligely from the point proposed, 83° N. lat. and 110° E. long., is quite 460 miles; I had probably taken the longitude as 100° instead of 110°.

be; but that, with two men to help, they should be able to do 9½ miles a day with 75 lbs. each for the first few days, sounds sufficiently reasonable, even if they are not very good ones. This, then, can scarcely be called a wild calculation, always, of course, supposing the ice to be as it is here, and there is no reason why it should not be. It, indeed, steadily improves the farther north we get; and it also improves with the approach of spring. In 50 days, then, we should reach the Pole (in 65 days we went 345 miles over the inland ice of Greenland at an elevation of more than 8000 feet without dogs and with defective provisions, and could certainly have gone considerably farther). In 50 days we shall have consumed a pound of pemmican a day for each dog,[1] that is 1400 lbs. altogether; and 2 lbs. of provisions for each man daily is 200 lbs. As some fuel also will have been consumed during this time, the freight on the sledges will have diminished to less than 500 lbs., but a burden like this is nothing for twenty-eight dogs to draw, so that they ought to go ahead like a gale of wind during the latter part of the time, and thus do it in less than the 50 days. However, let us suppose that it takes this time. If all has gone well we shall now direct our course for the Seven Islands, north of Spitzbergen. That is 9°, or 620 miles. But if we are not in first-rate condition, it will be safer to make for Cape Fligely or the land to the north of it. Let us suppose we decide on this route. We set out from the *Fram* on March 1st (if

[1] During the actual expedition the dogs had to be content with a much smaller daily ration, on an average scarcely more than 9 or 10 ozs.

circumstances are favourable we should start sooner) and therefore arrive at the Pole April 30th. We shall have about 500 lbs. of our provisions left, enough for another 50 days; but we can spare none for the dogs. We must, therefore, begin killing some of them, either for food for the others or for ourselves, giving our provisions to them. Even if my figures are somewhat too low, I may assume that by the time twenty-three dogs have been killed we shall have travelled 41 days, and still have five dogs left. How far south shall we have advanced in this time? The weight of baggage was, to begin with, less than 500 lbs., that is to say less than 18 lbs. for each dog to draw. After 41 days this will at least have been reduced to 280 lbs. (by the consumption of provisions and fuel and by dispensing with sundry articles of our equipment, such as sleeping-bags, tent, etc., etc., which will have become superfluous). There remain, then, 56 lbs. for each of the five dogs, if we draw nothing ourselves; and should it be desirable our equipment might be still further diminished. With a burden of from 18 to 56 lbs. apiece (the latter would only be toward the end), the dogs would on an average be able to do $13\frac{4}{5}$ miles a day, even if the snow-surface should become somewhat more difficult. That is to say, we shall have gone 565 miles to the south, or we shall be $18\frac{1}{2}$ miles past Cape Fligely, on June 1st, with five dogs and nine days' provisions left. But it is probable, in the first place, that we shall long before this have reached land; and, secondly, so early as the first half of April the Austrians found open water by Cape Fligely and abundance of birds. Consequently in May and June we

should have no difficulty as regards food, not to mention that it would be strange indeed if we had not before that time met with a bear, or a seal, or some stray birds.

"That we should now be pretty safe I consider as certain, and we can choose whichever route we please: either along the north-west coast of Franz Josef Land by Gillis Land toward North-East Island and Spitzbergen (and should circumstances prove favourable, this would decidedly be my choice), or we can go south through Austria Sound toward the south coast of Franz Josef Land, and thence to Novaya Zemlya or Spitzbergen, the latter by preference. We may, of course, find Englishmen on Franz Josef Land, but that we must not reckon on.

"Such, then, is my calculation. Have I made it recklessly? No, I think not. The only difficulty would be if during the latter part of the journey, in May, we should find the surface like that we had here last spring, at the end of May, and should be considerably delayed by it. But this would only be toward the very end of our time, and at worst it could not be entirely impassable. Besides, it would be strange if we could not manage to average 11½ miles a day during the whole of the journey, with an average load for each dog of from 30 to 40 lbs.—it would not be more. However, if our calculations should prove faulty, we can always, as aforesaid, turn back at any moment.

"*What unforeseen obstacles may confront us?*

"1. The ice may be more impracticable than was supposed.

"2. We may meet with land.

"3. The dogs may fail us, may sicken, or freeze to death.

"4. We ourselves may suffer from scurvy.

"1 and 2. That the ice may be more impracticable farther north is certainly possible, but hardly probable. I can see no reason why it should be, unless we have unknown lands to the north. But should this be so—very well, we must take what chance we find. The ice can scarcely be altogether impassable. Even Markham was able to advance with his scurvy-smitten people. And the coasts of this land may possibly be advantageous for an advance; it simply depends on their direction and extent. It is difficult to say anything beforehand, except that I think the depth of water we have here, and the drift of the ice render it improbable that we can have land of any extent at all close at hand. In any case there must, somewhere or other, be a passage for the ice, and at the worst we can follow that passage.

"3. There is always a possibility that the dogs may fail us, but, as may be seen, I have not laid out any scheme of excessive work for them. And, even if one or two of them should prove failures, that could not be the case with all. With the food they have hitherto had they have got through the winter and the cold without mishap, and the food they will get on the journey will be better. In my calculations, moreover, I have taken no account of what we shall draw ourselves. And, even supposing all the dogs to fail us, we could manage to get along by ourselves pretty well.

"4. The worst event would undeniably be that we ourselves should be attacked by scurvy; and, notwithstanding our excellent health, such a contingency is quite conceivable, when it is borne in mind how in the English North Pole Expedition all the men, with the exception of the officers, suffered from scurvy when the spring and the sledge journeys began, although as long as they were on board ship they had not the remotest suspicion that anything of the kind was lying in wait for them. As far, however, as we are concerned, I consider this contingency very remote. In the first place, the English Expedition was remarkably unfortunate, and hardly any others can show a similar experience, although they may have undertaken sledge journeys of equal length—for example, M'Clintock's. During the retreat of the *Jeannette* party, so far as is known, no one was attacked with scurvy. Peary and Astrup did not suffer from scurvy either. Moreover, our supply of provisions has been more carefully selected, and offers greater variety than has been the case in former expeditions, not one of which has enjoyed such perfect health as ours. I scarcely think, therefore, that we should take with us from the *Fram* any germs of scurvy, and as regards the provisions for the sledge journey itself, I have taken care that they shall consist of good all-round, nutritious articles of food, so that I can scarcely believe that they would be the means of developing an attack of this disease. Of course, one must run some risk; but in my opinion all possible precautions have been taken, and, when that is done, it is one's duty to go ahead.

"There is yet another question that must be taken

into consideration. Have I the right to deprive the ship and those who remain behind of the resources such an expedition entails? The fact that there will be two men less is of little importance, for the *Fram* can be handled quite as well with eleven men. A more important point is that we shall have to take with us all the dogs except the seven puppies; but they are amply supplied with sledge provisions and first-class sledge equipments on board, and it is inconceivable that in case anything happened to the *Fram* they should be unable to reach Franz Josef Land or Spitzbergen. It is scarcely likely that in case they had to abandon her, it would be farther north than 85°; probably not even so far north. But suppose they were obliged to abandon her at 85°, it would probably be about north of Franz Josef Land, when they would be 207 miles from Cape Fligely; or if farther to the east it would be some 276 miles from the Seven Islands; and it is hard to believe that they could not manage a distance like that with our equipments. Now, as before, I am of opinion that the *Fram* will in all probability drift right across the polar basin and out on the other side without being stopped, and without being destroyed; but even if any accident should occur I do not see why the crew should not be able to make their way home in safety, provided due measures of precaution are observed. Consequently, I think there is no reason why a sledge expedition should not leave the *Fram*; and I feel that as it promises such good results it ought certainly to be attempted."

VII

WE PREPARE FOR THE SLEDGE EXPEDITION

"Monday, November 19th. The last step over the bridge of resolution has now been taken. In the forenoon I explained the whole matter to Johansen in pretty much the same terms as I have used above; and then I expatiated on the difficulties that might occur, and laid strong emphasis on the dangers one must be prepared to encounter. It was a serious matter—a matter of life or death—this one must not conceal from oneself. He must think the thing well over before determining whether he would accompany me or not. If he was willing to come I should be glad to have him with me; but I would rather, I said, he should take a day or two to think it well over before he gave me his answer. He did not need any time for reflection, he said; he was quite willing to go. Sverdrup had long ago mentioned the possibility of such an expedition, and he had thought it well over, and made up his mind that if my choice should fall on him he would take it as a great favour to be permitted to accompany me. 'I don't know whether you'll be satisfied with this answer, or whether you would like me still to think it over; but I should certainly never change my mind.' 'No, if you have already thought seriously about it—thought what risks you expose yourself to—the chance, for

instance, that neither of us may ever see the face of man again—and if you have reflected that even if we get through safe and sound we must necessarily face a great deal of hardship on an expedition like this—if you have made up your mind to all this, I don't insist on your reflecting any longer about it.' 'Yes, that I have.' 'Well, then, that is settled. To-morrow we shall begin our preparations for the trip. Hansen must see about appointing another meteorological assistant.'"

"Tuesday, November 20th. This evening I delivered an address to the whole ship's company, in which I announced the determination that had been arrived at, and explained to them the projected expedition. First of all I briefly went through the whole theory of our undertaking, and its history from the beginning, laying stress on the idea on which my plans had been built up, namely that a vessel which got frozen in north of Siberia must drift across the Polar Sea and out into the Atlantic, and must pass somewhere or other north of Franz Josef Land, and between it and the Pole. The object of the expedition was to accomplish this drift across the unknown sea, and to pursue investigations there. I pointed out to them that these investigations would be of equal importance whether the expedition actually passed across the Pole itself or at some distance from it. Judging from our experiences hitherto, we could not entertain any doubt that the expedition would solve the problem it had set before it; everything had up to the present gone according to our anticipations, and it was to be hoped and expected that this would continue to be the case for the remainder of the voyage. We

had, therefore, every prospect of accomplishing the principal part of our task; but then the question arose whether more could not be accomplished; and thereupon I proceeded to explain, in much the same terms as I have used above, how this might be effected by an expedition northward.

"I had the impression that every one was deeply interested in the projected expedition, and that they all thought it most desirable that it should be attempted. The greatest objection, I think, they would have urged against it, had they been asked, would have been that they themselves could not take part in it. I impressed on them, however, that while it was unquestionably a fine thing to push on as far as possible toward the north, it was no whit less honourable an undertaking to bring the *Fram* safe and sound right through the Polar Sea, and out on the other side—or if not the *Fram*, at all events themselves, without any loss of life. This done, we might say, without fear of contradiction, that it was well done. I think they all saw the force of this and were satisfied. So now the die is cast, and I must believe that this expedition will really take place."

So we set about our preparations for it in downright earnest. I have already mentioned that at the end of the summer I had begun to make a kayak for a single man, the frame of which was of bamboo carefully lashed together. It was rather slow work, and took several weeks, but it turned out both light and strong. When completed the frame-work weighed 16 lbs. It was afterward covered with sail-cloth by Sverdrup and

Blessing, when the whole boat weighed 30 lbs. After finishing this, I had entrusted Mogstad with the task of building a similar one. Johansen and I now set to work to make a cover for it. These kayaks were 3·70 metres (12 feet) long, about 0·7 metre (28 inches) wide in the middle, and one was 30 centimetres (12 inches) and the other 38 centimetres (15 inches) deep. This is considerably shorter and wider than an ordinary Eskimo kayak, and consequently these boats were not so light to propel through the water. But as they were chiefly intended for crossing over channels and open spaces in the ice, and coasting along possible land, speed was not of much importance. The great thing was that the boats should be strong and light, and should be able to carry, in addition to ourselves, provisions and equipments for a considerable time. If we had made them longer and narrower, besides being heavier they would have been more exposed to injury in the course of transport over the uneven ice. As they were built, they proved admirably adapted for our purpose. When we loaded them with care we could stow away in them provisions and equipment for three months at least for ourselves, besides a good deal of food for the dogs; and we could, moreover, carry a dog or two on the deck. In other respects they were essentially like the Eskimo kayaks, full decked, save for an aperture in the middle for a man to sit in. This aperture was encircled by a wooden ring, after the Eskimo fashion, over which we could slip the lower part of our sealskin jackets, specially adjusted for this purpose, so that the junction between boat and cape was watertight. When

these jackets were drawn tight round the wrists and face the sea might sweep right over us without a drop of water coming into the kayak. We had to provide ourselves with such boats in case of having to cross open stretches of sea on our way to Spitzbergen, or, if we chose the other route, between Franz Josef Land and Novaya Zemlya. Besides this aperture in the middle, there were small trap-doors fore and aft in the deck, to enable us to put our hands in and stow the provisions, and also get things out more readily, without having to take out all the freight through the middle aperture, in case what we wanted lay at either extremity. These trap-doors, however, could be closed so as to be quite watertight. To make the canvas quite impervious to water the best plan would have been to have sized it, and then painted it externally with ordinary oil paint; but on the one hand it was very difficult to do this work in the extreme cold (in the hold the temperature was −20° C. (−4° F.)), and on the other hand I was afraid the paint might render the canvas too hard and brittle, and apt to have holes knocked in it during transport over the ice. Therefore I preferred to steep it in a mixture of paraffin and tallow, which added somewhat to the weight of the kayaks, so that altogether they came to weigh about 36 lbs. apiece.

I had, moreover, some hand-sledges made especially for this expedition; they were supple and strong, designed to withstand the severe tests to which an expedition with dogs and heavy freights over the uneven drift-ice would necessarily expose them. Two of these sledges were about the same length as the

kayaks, that is, 12 feet. I also made several experiments with respect to the clothes we should wear, and was especially anxious to ascertain whether it would do to go in our thick wolf-skin garments, but always came to the conclusion that they were too warm.

Of course, we made some experiments with the tent and with the cooking apparatus. On December 7th I write: "I pitched the silk tent we are going to take, and used our cooking apparatus in it. From repeated trials it appeared that from ice of −35° C. (−31° F.) we boiled 3 litres of water (5¼ pints), and at the same time melted 5 litres (8¾ pints), in an hour and a half, with a consumption of about 120 grammes of snowflake petroleum. Next day we boiled 2½ litres of water (over 4 pints), and melted 2½ litres, in one hour, with 100 grammes of snowflake petroleum. Yesterday we made about 2 litres of excellent oatmeal porridge, and at the same time got some half-melted ice and a little water in little over half an hour, with 50 grammes of snowflake petroleum. Thus there will be no very great consumption of fuel in the day."

Then I made all kinds of calculations and computations in order to find out what would be the most advantageous kind of provisions for our expedition, it being of the greatest moment that the food both for dogs and men should be nutritious, and yet should not weigh more than was absolutely necessary. Besides all this, we had of course to consider and test the instruments to be taken with us, and to go into many other matters, which, though perhaps trifles in themselves, were yet absolutely necessary. It is on the

felicitous combination of all these trifles that ultimate success depends.

We two passed the greater portion of our time in these preparations, which also kept many of the others pretty busy during the winter. Mogstad, for instance, found steady employment in making sledges and fitting them with runners, etc. Sverdrup busied himself in making sleeping-bags and many other things. Juell was appointed dog-tailor, and when he was not busy in the galley, his time was devoted to taking the measurements of the dogs, making harness for them, and testing it. Blessing, too, fitted up for us a small, light medicine-chest, containing selected drugs, bandages, and such other things as might be of use. One man was constantly employed in copying out all our journals and scientific observations, etc., etc., on thin paper, in a contracted form, as I wanted, by way of making doubly sure of their preservation, to take a copy of them along with me. Hansen was occupied in preparing tabular forms necessary for our observations, curves of the movement of our chronometers, and other such things. Besides this, he was to make a complete chart of our voyage and drifting up to the present time.

I could not, however, make too great a claim on his valuable time, as it was necessary that he should continue his scientific observations without interruption. During this autumn he had greatly increased the comfort of his work, by building, along with Johansen, an observation-hut of snow, not unlike an Eskimo cabin. He found himself very much at his ease in it,

with a petroleum lamp hanging from the roof, the light of which, being reflected by the white snow walls, made quite a brilliant show. Here he could manipulate his instruments quietly and comfortably, undisturbed by the biting wind outside. He thought it quite warm there, too, when he could get the temperature up to something like 20° below freezing-point, so that he was able without much inconvenience to adjust his instruments with bare hands. Here he worked away indefatigably at his observations day after day, watching the often mysterious movements of the magnetic needle, which would sometimes give him no end of trouble. One day—it was November 24th—he came in to supper a little after six o'clock, quite alarmed, and said, "There has just been a singular inclination of the needle to 24°, and, remarkably enough, its northern extremity pointed to the east. I cannot remember ever having heard of such an inclination." He also had several others of about 15°. At the same time, through the opening into his observatory, he noticed that it was unusually light out of doors, and that not only the ship but the ice in the distance was as plainly visible as if it had been full moonlight. No aurora, however, could be discerned through the thick clouds that covered the sky. It would appear, then, that this unusual inclination was in some way connected with the northern lights, though it was to the east and not to the west as usual. There could be no question of any movement of the floe on which we were lying; for everything had been perfectly still and quiet, and it is inconceivable that a disturbance which could cause such a remarkable

oscillation of two points and back again in so short a space of time should not have been noticed and heard on board. This theory, therefore, is entirely excluded, and the whole matter seems to me, for the present, to be incomprehensible.

VIII

THE NEW YEAR, 1895

"THURSDAY, January 3rd [1895]. At half-past four in the morning a fresh rush of ice set in in the lane aft, and at five it commenced in the lane on our port side. About eight o'clock I awoke, and heard the crunching and crackling of the ice, as if ice-pressure were setting in. A slight trembling was felt throughout the *Fram*, and I heard the roar outside. When I came out I was not a little surprised to find a large pressure-ridge all along the channel on the port side, scarcely thirty paces from the *Fram*; the cracks on this side extended to quite eighteen paces from us. All loose articles that were lying on the ice on this side were stowed away on board; the boards and planks, which during the summer had supported the meteorological hut and the screen for the same, were chopped up, as we could not afford to lose any materials, but the line, which had been left out in the sounding hole with the bag-net attached to it, was caught in the pressure. Just after I had come on board again shortly before noon, the ice suddenly began to press on again. I went out to have a look; it was again in the lane on the port side; there was a strong pressure, and the ridge was gradually approaching. A little later on Sverdrup went up on deck, but soon after came below and told us that the ridge was quickly bearing down on us, and a few

hands were required to come up and help to load the sledge with the sounding apparatus, and bring it round to the starboard side of the *Fram*, as the ice had cracked close by it. The ridge began to come alarmingly near, and, should it be upon us before the *Fram* had broken loose from the ice, matters might become very unpleasant. The vessel had now a greater list to the port side than ever.

"During the afternoon various preparations were made to leave the ship if the worst should happen. All the sledges were placed ready on deck, and the kayaks were also made clear, twenty-five cases of dog-biscuits were deposited on the ice on the starboard side, and nineteen cases of bread were brought up and placed forward; also four drums holding altogether twenty-two gallons of petroleum were put on deck. Ten smaller-sized tins had previously been filled with 100 litres of snowflake oil, and various vessels containing gasoline were also standing on deck. As we were sitting at supper we again heard the same crunching and crackling noise in the ice as usual, coming nearer and nearer, and finally we heard a crash proceeding from right underneath where we sat. I rushed up. There was a pressure of ice in the lane a little way off, almost on our starboard beam. I went down again, and continued my meal. Peter, who had gone out on the ice, soon after came down and said, laughing as usual, that it was no wonder we heard some crackling, for the ice had cracked not a sledge-length away from the dog-biscuit cases, and the crack was extending abaft of the *Fram*. I went out and found the crack was a very

considerable one. The dog-biscuit cases were now shifted a little more forward for greater safety. We also found several minor cracks in the ice around the vessel. I then went down and had a pipe and a pleasant chat with Sverdrup in his cabin. After we had been sitting a good while the ice again began to crack and jam. I did not think that the noise was greater than usual, nevertheless I asked those in the saloon, who sat playing halma, whether there was anyone on deck; if not, would one of them be kind enough to go and see where the ice was packing. I heard hurried steps above; Nordahl came down and reported that it was on the port side, and that it would be best for us to be on deck. Peter and I jumped up and several followed. As I went down the ladder Peter called out to me from above: 'We must get the dogs out; see, there is water on the ice!' It was high time that we came; the water was rushing in and already stood high in the kennel. Peter waded into the water up to his knees and pushed the door open; most of the dogs rushed out and jumped about splashing in the water, but some, being frightened, had crept back into the innermost corner and had to be dragged out, although they stood in water reaching high up their legs. Poor brutes, it must have been miserable enough in all conscience to be shut up in such a place while the water was steadily rising about them, yet they are not more noisy than usual.

"The dogs having been put in safety, I walked round the *Fram* to see what else had happened. The ice had cracked along her, to the fore, near the star-

board bow; from this crack the water had poured aft along the port side, which was weighed down by the weight of the ridge steadily pressing on toward us. The crack had just passed under the middle of the portable forge, which was thus endangered, and it was therefore put on a sledge and removed to the great hummock on the starboard quarter. The pemmican, altogether eleven cases, the cases of dog-biscuits, and nineteen cases of bread, were conveyed to the same place. Thus we have now a complete *dépôt* lying over there, and, I trust, in entire safety, the ice being so thick that it is not likely to give way. This has brought life into the lads; they have all turned out. We took out four more tin cans of petroleum to the hummock, and then proceeded to bring up from the hold and place on deck ready for removal, twenty-one cases of bread, and a supply of pemmican, chocolate, butter, 'vril-food,' soup, etc., calculated to last us 200 days. Also tents, cooking apparatus, and the like were got ready, so that now all is clear up there, and we may sleep securely; but it was past midnight before we had done. I still trust that it is all a false alarm, and that we shall have no occasion for these supplies now at any rate; nevertheless it is our duty to keep everything ready in case the unthinkable should happen. Moreover, the watch has been enjoined to mind the dogs on the ice and to keep a sharp look-out in case the ice should crack underneath our cases or the ice-pressure should recommence; if anything should happen we are to be called out at once, too early rather than too late. While I sit here and write I hear the crunching

and crackling beginning again outside, so that there must still be a steady pressure on the ice. All are in the best spirits; it almost appears as if they looked upon this as a pleasant break in the monotony of our existence. Well, it is half-past one; I had better turn into my bunk; I am tired, and goodness knows how soon I may be called up."

"Friday, January 4th. The ice kept quiet during the night, but all day with some intervals it has been crackling and settling; and this evening there have been several fits of pressure, from nine o'clock onward. For a time it came on, sometimes rather lightly, at regular intervals, sometimes with a rush and a regular roar, then it subsided somewhat, and then it roared anew. Meanwhile the pressure-ridge towers higher and higher and bears right down upon us slowly, while the pressure comes on at intervals only, and more quickly when the onset continues for a time. One can actually see it creeping nearer and nearer, and now at one o'clock at night it is not many feet—scarcely five—away from the edge of the snowdrift on the port side near the gangway, and thence to the vessel is scarcely more than ten feet, so that it will not be long now before it is upon us. Meanwhile the ice continues to split, and the solid mass in which we are embedded grows less and less both to port and starboard. Several fissures extend right up to the *Fram*. As the ice sinks down under the weight of the ridge on the port side and the *Fram* lists more that way, more water rushes up over the new ice which has frozen on the water that rose yesterday. This is like dying by inches. Slowly

but surely the baleful ridge advances, and it looks as if it meant going right over the rail; but if the *Fram* will only oblige by getting free of the ice, she will, I feel confident, extricate herself yet, even though matters look rather awkward at present. We shall probably have a hard time of it, however, before she can break loose, if she does not do so at once. I have been out and had a look at the ridge, and seen how surely it is advancing; I have looked at the fissures in the ice, and noted how they are forming and expanding round the vessel; I have listened to the ice crackling and crunching under foot; and I do not feel much disposed to turn into my berth before I see the *Fram* quite released. As I sit here now I hear the ice making a fresh assault, and roaring and packing outside, and I can tell that the ridge is coming nearer. This is an ice-pressure with a vengeance, and it seems as if it would never cease. I do not think there is anything more that we can do now. All is in readiness for leaving the vessel, if need be. To-day the clothing, etc., was taken out and placed ready for removal, in separate bags for each man."

"Saturday, January 5th. I was called at 5.30 in the morning by Sverdrup, who told me that the hummock had now reached the *Fram*, and was bearing down on us violently, reaching as high as the rail; I was not left in doubt very long, as, hardly had I opened my eyes, when I heard a thundering and crashing outside in the ice, as if Doomsday had come. I jumped up. There was nothing left for it but to call all hands, to put all the remaining provisions on the ice, and then

put all our furs and other equipment on deck, so that they could be thrown overboard at a moment's notice if necessary. Thus the day passed, but the ice kept quiet. Last of all, the petroleum launch, which was hanging in the davits on the port side, was lowered, and was dragged toward the great hummock. At about eight o'clock in the evening, when we thought the ice-pressure had subsided, it started thundering and crashing again worse than ever. I hurried up. Masses of snow and ice rushed on us, high above the rail amidships and over the tent. Peter, who also came up, seized a spade and rushed forward outside the awning as far as the forepart of the half-deck, and stood in the midst of the ice, digging away, and I followed to see how matters stood. I saw more than I cared to see; it was hopeless to fight that enemy with a spade. Running forward under the tent toward the ladder, I saw that the tent-roof was bent down under the weight of the masses of ice, which were rushing over it and crashing in over the rail and bulwarks to such an extent that I expected every moment to see the ice force its way through and block up the passage. When I got below I called all hands on deck; but told them when going up not to go out through the door on the port side, but through the chart-room and out on the starboard side. In the first place, all the bags were to be brought up from the saloon, and then we were to take those lying on deck. I was afraid that if the door on the port side were not kept closed, the ice might, if it suddenly burst through the bulwarks and tent, rush over the deck, and in through the door, fill the

passage, and rush down the ladder, and thus imprison us like mice in a trap. True, the passage up from the engine-room had been cleared for this emergency, but this was a very narrow hole to get through with heavy bags, and no one could tell how long this hole would keep open, when the ice once attacked us in earnest. I ran up again to set free the dogs, which were shut up in 'Castle-garden'—an enclosure on the deck along the port bulwark. They whined and howled most dolefully under the tent, as the snow masses threatened at any moment to crush it and bury them alive. I cut away the fastening with a knife, pulled the door open, and out rushed most of them by the starboard gangway at full speed.

"Meantime the hands started bringing up the bags It was quite unnecessary to ask them to hurry up—the ice did that, thundering against the ship's sides in a way that seemed irresistible. It was a fearful hurly-burly in the darkness; for, to cap all, the mate had, in the hurry, let the lanterns go out.

"While we were dragging the bags along, the pressure and jamming of the ice had at last stopped, and all was quiet again as before.

"But, what a sight! The *Fram's* port side was quite buried under the snow; all that could be seen was the top of the tent projecting. Had the petroleum launch been hanging in the davits, as it was a few hours previously, it would hardly have escaped destruction. The davits were quite buried in ice and snow. It is curious that both fire and water have been powerless against that boat, and it has now come out unscathed from the

ice, and lies there bottom upward on the floe. She has had a stormy existence and continual mishaps; I wonder what is next in store for her?

"It was, I must admit, a most exciting scene, when it was at its worst, and we thought it was imperative to get the bags up from the saloon with all possible speed. Sverdrup now tells me that he was just about to have a bath, and was as naked as when he was born, when he heard me call all hands on deck. As this had not happened before he understood there was something serious the matter, and he jumped into his clothes anyhow. Amundsen, apparently, also realized that something was amiss. He says he was the first who came up with his bag; he had not understood, or had forgotten in the confusion, the order about going out through the starboard door; he groped his way out on the port side and fell in the dark over the edge of the half-deck. 'Well, that did not matter,' he said, 'he was quite used to that kind of thing'; but having pulled himself together after the fall, and as he was lying there on his back, he dared not move, for it seemed to him as if tent and all were coming down on him, and it thundered and crashed against the gunwale and the hull as if the last hour had come. It finally dawned on him why he ought to have gone out on the starboard and not on the port side.

"All that could possibly be thought to be of any use was taken out. The mate was seen dragging along a big bag of clothes, with a heavy bundle of cups fastened outside it. Later, he was stalking about with all sorts of things such as mittens, knives, cups, etc.,

fastened to his clothes and dangling about him, so that the rattling noise could be heard afar off. He is himself to the last.

"In the evening the men all started eating their stock of cakes, sweetmeats, and such-like, smoked tobacco, and enjoyed themselves in the most animated fashion. They evidently thought it was uncertain when they should next have such a time on board the *Fram*, and therefore they thought it was best to avail themselves of the opportunity. We are now living in marching order on an empty ship.

"By way of precaution we have now burst open again the passage on the starboard side which was used as a library and had therefore been closed; and all doors are now kept always open, so that we can be sure of getting out, even if anything should give way. We do not want the ice-pressure to close the doors against us, by jamming the doorposts together. But she certainly is a strong ship. It is a mighty ridge that we have in our port side, and the masses of ice are tremendous. The ship is listing more than ever, nearly 7°; but since the last pressure she has righted herself a little again, so that she must surely have broken away from the ice, and begun to rise, and all danger is doubtless over. So, after all, it has been a case of 'Much ado about nothing.'"

"Sunday, January 6th. A quiet day; no jamming since last night. Most of the fellows slept well on into the morning. This afternoon all have been very busy digging the *Fram* out of the ice again, and we have now got the rail clear right aft to the half-deck; but

a tremendous mass had fallen over the tent. It was above the second ratline in the fore-shrouds, and fully 6 feet over the rail. It is a marvel that the tent stood it; but it was a very good thing that it did do so, for otherwise it is hard to say what might have become of many of the dogs. This afternoon Hansen took a meridian observation, which gave 83° 34′ N lat. Hurrah! We are getting on well, northward; thirteen minutes since Monday, and the most northern latitude is now reached. It goes without saying that the occasion was duly celebrated with a bowl of punch, preserved fruits, cakes, and the doctor's cigars.

"Last night we were running with the bags for our lives; to-night we are drinking punch and feasting; such are, indeed, the vicissitudes of fate. All this roaring and crashing for the last few days has been, perhaps, a cannonade to celebrate our reaching such a high latitude. If that be so it must be admitted that the ice has done full honour to the occasion. Well, never mind, let it crash on so long as we only get northward. The *Fram* will, no doubt, stand it now; she has lifted fully one foot forward and fully six inches aft; and she has slipped a little astern. Moreover, we cannot find so much as a single stancheon in the bulwarks that has started; yet to-night every man will sleep fully prepared to make for the ice."

IX

WE SAY GOOD-BYE TO THE *FRAM*

At last by midday, on March 14th, we finally left the *Fram*, to the noise of a thundering salute. Some of our comrades came a little way with us, but Sverdrup soon turned back in order to be on board for dinner at one o'clock. It was on the top of a hummock that we two said good-bye to each other; the *Fram* was lying behind us, and I can remember how I stood watching him as he strode easily homeward on his snowshoes. I half wished I could turn back with him and find myself again in the warm saloon; I knew only too well that a life of toil lay before us, and that it would be many a long day before we should again sleep and eat under a comfortable roof; but that that time was going to be so long as it really proved to be, none of us then had any idea. We all thought that either the expedition would succeed, and that we should return home that same year, or—that it would not succeed.

A little while after Sverdrup had left us, Mogstad also found it necessary to turn back. He had thought of going with us till the next day, but his heavy wolfskin trousers were, as he un-euphemistically expressed it, "almost full of sweat, and he must go back to the fire on board to get dry." Hansen, Henriksen, and Pettersen were then the only ones left, and they laboured along each with his load on his back. It was difficult

for them to keep up with us on the flat ice, so quickly did we go; but when we came to pressure-ridges we were brought to a standstill and the sledges had to be helped over. At one place the ridge was so bad that we had to carry the sledges a long way. When, after considerable trouble, we had managed to get over it, Peter shook his head reflectively, and said to Johansen that we should meet plenty more of the same kind, and have enough hard work before we had eaten sufficient of the loads to make the sledges run lightly. Just here we came upon a long stretch of bad ice, and Peter became more and more concerned for our future; but toward evening matters improved, and we advanced more rapidly. When we stopped at six o'clock the odometer registered a good 7 miles, which was not so bad for a first day's work. We had a cheerful evening in our tent, which was just about big enough to hold all five. Pettersen, who had exerted himself and become overheated on the way, shivered and groaned while the dogs were being tied up and fed, and the tent pitched. He, however, found existence considerably brighter when he sat inside it, in his warm wolfskin clothes, with a pot of smoking chocolate before him, a big lump of butter in one hand and a biscuit in the other, and exclaimed, "Now I am living like a prince." He thereafter discoursed at length on the exalting thought that he was sitting in a tent in the middle of the Polar Sea. Poor fellow, he had begged and prayed to be allowed to come with us on this expedition; he would cook for us and make himself generally useful, both as a tin- and black-smith; and

then, he said, three would be company. I regretted that I could not take more than one companion, and he had been in the depths of woe for several days, but now found comfort in the fact that he had, at any rate, come part of the way with us, and was out on this great desert sea, for, as he said, "not many people have done that."

The others had no sleeping-bag with them, so they made themselves a cosy little hut of snow, into which they crawled in their wolfskin garments, and had a tolerably good night. I was awake early the next morning; but when I crept out of the tent I found that somebody else was on his legs before me, and this was Pettersen, who, awakened by the cold, was now walking up and down to warm his stiffened limbs. He had tried it now, he said; he never should have thought it possible to sleep in the snow, but it had not been half bad. He would not quite admit that he had been cold, and that that was the reason why he had turned out so early. Then we had our last pleasant breakfast together, got the sledges ready, harnessed the dogs, shook hands with our companions, and, without many words being uttered on either side, started out into solitude. Peter shook his head sorrowfully as we went off. I turned round when we had gone some little way, and saw his figure on the top of the hummock; he was still looking after us. His thoughts were probably sad; perhaps he believed that he had spoken to us for the last time.

We found large expanses of flat ice, and covered the ground quickly, farther and farther away from our

comrades, into the unknown, where we two alone and the dogs were to wander for months. The *Fram's* rigging had disappeared long ago behind the margin of the ice. We often came on piled-up ridges and uneven ice, where the sledges had to be helped and sometimes carried over. It often happened, too, that they capsized altogether, and it was only by dint of strenuous hauling that we righted them again. Somewhat exhausted by all this hard work, we stopped finally at six o'clock in the evening, and had then gone about 9 miles during the day. They were not quite the marches I had reckoned on, but we hoped that by degrees the sledges would become lighter, and the ice better to travel over.

The ice continued to become more even during the following days, and our marches often amounted to 14 miles or more in the day. Now and then a misfortune might happen which detained us, as, for instance, one day a sharp spike of ice which was standing up cut a hole in a sack of fish-flour, and all the delicious food ran out. It took us more than an hour to collect it all again, and repair the damages. Then the odometer got broken through being jammed in some uneven ice, and it took some hours to mend it by a process of lashing. But on we went northward, often over great wide ice-plains which seemed as if they must stretch right to the Pole. Sometimes it happened that we passed through places where the ice was "unusually massive, with high hummocks, so that it looked like undulating country covered with snow." This was undoubtedly very old ice, which had drifted in the

Polar Sea for a long time on its way from the Siberian Sea to the east coast of Greenland, and must have been subjected year after year to severe pressure. High hummocks and mounds are thus formed, which summer after summer are partially melted by the rays of the sun, and again in the winters covered with great drifts of snow, so that they assume forms which resemble ice-hills, rather than piles of sea-ice resulting from upheaval.

"Sunday, March 24th. We killed Livjægeren yesterday evening, and hard work it was skinning him."

This was the first dog which had to be killed; but many came afterward, and it was some of the most disagreeable work we had on the journey, particularly now at the beginning when it was so cold. When this first dog was dismembered and given to the others, many of them went supperless the whole night in preference to touching the meat. But as the days went by and they became more worn-out, they learned to appreciate dog's flesh, and later on we were not even so considerate as to skin the butchered animal, but served it hair and all.

Sometimes we were so sleepy in the evenings that our eyes shut and we fell asleep as we went along. My head would drop, and I would be awakened by suddenly falling forward on my snowshoes. Then we would stop, after having found a camping-ground behind a hummock or ridge of ice, where there was some shelter from the wind. While Johansen looked after the dogs it generally fell to my lot to pitch the

tent, fill the cooker with ice, light the burner, and start the supper as quickly as possible. This generally consisted of lobscouse one day, made of pemmican and dried potatoes; another day of a sort of fish rissole substance known as *fiskegratin* in Norway, and in this case composed of fish-meal, flour, and butter. A third day it would be pea, bean, or lentil soup, with bread and pemmican. Johansen preferred the lobscouse, while I had a weakness for the *fiskegratin*. As time went by, however, he came over to my way of thinking, and the *fiskegratin* took precedence of everything else.

As soon as Johansen had finished with the dogs, and the different receptacles containing the ingredients and eatables for breakfast and supper were brought in, as well as our bags with private necessities, the sleeping-bags were spread out, the tent-door carefully shut, and we crept into the bag to thaw our clothes. This was not very agreeable work. During the course of the day the damp exhalations of the body had little by little become condensed in our outer garments, which were now a mass of ice and transformed into complete suits of ice-armour. They were so hard and stiff that if we had only been able to get them off they could have stood by themselves, and they crackled audibly every time we moved. These clothes were so stiff that the sleeve of my coat actually rubbed deep sores in my wrists during our marches; one of these sores—the one on the right hand—got frostbitten, the wound grew deeper and deeper, and nearly reached the bone. I tried to protect it with bandages, but not until late in the summer did it heal, and I shall probably have the

scar for life. When we got into our sleeping-bags in the evening our clothes began to thaw slowly, and on this process a considerable amount of physical *heat* was expended. We packed ourselves tight into the bag, and lay with our teeth chattering for an hour, or an hour and a half, before we became aware of a little of the warmth in our bodies which we so sorely needed. At last our clothes became wet and pliant only to freeze again a few minutes after we had turned out of the bag in the morning. There was no question of getting these clothes dried on the journey so long as the cold lasted, as more and more moisture from the body collected in them.

How cold we were as we lay there shivering in the bag waiting for the supper to be ready! I, who was cook, was obliged to keep myself more or less awake to see to the culinary operations, and sometimes I succeeded. At last the supper was ready, was portioned out, and, as always, tasted delicious. These occasions were the supreme moments of our existence, moments to which we looked forward the whole day long. But sometimes we were so weary that our eyes closed, and we fell asleep with the food on its way to our mouths. Our hands would fall back inanimate with the spoons in them and the food fly out on the bag. After supper we generally permitted ourselves the luxury of a little extra drink, consisting of water, as hot as we could swallow it, in which whey-powder had been dissolved. It tasted something like boiled milk, and we thought it wonderfully comforting; it seemed to warm us to the very ends of our toes. Then we would creep down

into the bag again, buckle the flap carefully over our heads, lie close together, and soon sleep the sleep of the just.

In the morning, as cook, I was obliged to turn out to prepare the breakfast, which took an hour's time. As a rule, it consisted one morning of chocolate, bread, butter, and pemmican; another of oatmeal porridge, or a compound of flour, water, and butter, in imitation of our 'butter-porridge' at home. This was washed down with milk, made of whey-powder and water. The breakfast ready, Johansen was roused; we sat up in the sleeping-bag, one of the blankets was spread out as a table-cloth, and we fell to work. We had a comfortable breakfast, wrote up our diaries, and then had to think about starting. But how tired we sometimes were, and how often would I not have given anything to be able to creep to the bottom of the bag again and sleep the clock round! It seemed to me as if this must be the greatest pleasure in life, but our business was to fight our way northward, always northward. We performed our toilets, and then came the going out into the cold to get the sledges ready, disentangle the dogs' traces, harness the animals, and get off as quickly as possible. I went first to find the way through the uneven ice, then came the sledge with my kayak. The dogs soon learned to follow, but at every unevenness of the ground they stopped, and if one could not get them all to start again at the same time by a shout, and so pull the sledge over the difficulty, one had to go back to beat or help them, according as circumstances necessitated. Then came Johansen with the two other

sledges, always shouting to the dogs to pull harder, always beating them, and himself hauling to get the sledges over the terrible ridges of ice. It was undeniable cruelty to the poor animals from first to last, and one must often look back on it with horror. It makes me shudder even now when I think of how we beat them mercilessly with thick ash sticks when, hardly able to move, they stopped from sheer exhaustion. It made one's heart bleed to see them, but we turned our eyes away and hardened ourselves. It was necessary; forward we must go, and to this end everything else must give place. It is the sad part of expeditions of this kind that one systematically kills all better feelings, until only hard-hearted egoism remains. When I think of all those spendid animals, toiling for us without a murmur, as long as they could strain a muscle, never getting any thanks or even so much as a kind word, daily writhing under the lash until the time came when they could do no more and death freed them from their pangs—when I think of how they were left behind, one by one, up there on those desolate ice-fields, which had been witness to their faithfulness and devotion, I have moments of bitter self-reproach.

It took us two alone such a long time to pitch the tent, feed the dogs, cook, etc., in the evening, and then break up again and get ready in the morning, that the days never seemed long enough if we were to do proper day's marches, and, besides, get the sleep we required at night. But when the nights became so light it was not so necessary to keep regular hours any longer, and we started when we pleased, whether it was night or

day. We stopped, too, when it suited us, and took the sleep which might be necessary for ourselves and the dogs. I tried to make it a rule that our marches were to be of nine or ten hours' duration. In the middle of the day we generally had a rest and something to eat; as a rule bread and butter, with a little pemmican or liver *pâté*. These dinners were a bitter trial. We used to try and find a good sheltered place, and sometimes even rolled ourselves up in our blankets, but all the same the wind cut right through us as we sat on the sledges eating our meal. Sometimes, again, we spread the sleeping-bag out on the ice, took our food with us, and crept well in, but even then did not succeed in thawing either it or our clothes. When this was too much for us we walked up and down to keep ourselves warm, and ate our food as we walked. Then came the no less bitter task of disentangling the dogs' traces, and we were glad when we could get off again. In the afternoon, as a rule, we each had a piece of meat-chocolate.

Most Arctic travellers who have gone on sledge journeys have complained of the so-called Arctic thirst, and it has been considered an almost unavoidable evil in connexion with a long journey across wastes of snow. It is often increased, too, by the eating of snow. I had prepared myself for this thirst, from which we had also suffered severely when crossing Greenland, and had taken with me a couple of indiarubber flasks, which we filled with water every morning from the cooker, and by carrying in the breast were able to protect from the cold. To my great astonishment, however, I soon

discovered that the whole day would often pass by without my as much as tasting the water in my flask. As time went by, the less need did I feel to drink during the day, and at last I gave up taking water with me altogether. If a passing feeling of thirst made itself felt a piece of fresh ice, of which, as a rule, there was always some to be found, was sufficient to dispel it.[1] The reason why we were spared this suffering, which has been one of the greatest hardships of many sledge expeditions, must be attributed in a great measure to our admirable cooking apparatus. By the help of this we were able, with the consumption of a minimum of fuel, to melt and boil so much water every morning that we could drink all we wished. There was even some left over, as a rule, which had to be thrown away. The same thing was generally the case in the evening.

[1] Whereas eating snow may increase the above-mentioned feeling of thirst, and have disagreeable consequences in other ways, sucking a piece of ice, which will soon quench it, may safely be resorted to, particularly if it be held in the hand a little while before putting it in the mouth. Many travellers have, no doubt, had the same experience.

X

A HARD STRUGGLE

"TUESDAY, April 2nd. There are many different kinds of difficulty to overcome on this journey, but the worst of all, perhaps, is getting all the trifles done and starting off. In spite of my being up by seven o'clock on Monday evening to do the cooking, it was nearly two this morning before we got clear of our camping-ground. The load on Johansen's sledge had to be relashed, as the contents of one grip had been eaten up, and we had to put a sack of bread in its place. Another grip had to be sewn together, as it was leaking pemmican. Then the sledge from which the bread-sack had been taken had to be lashed secure again, and while we had the ropes undone it was just as well to get out a supply of potatoes. During this operation we discovered that there was a hole in the fish-flour sack, which we tied up, but no sooner had we done so, than we found another large one which required sewing. When we came to pack the potato-sack this too had a hole in it, which we tied up, and so on. Then the dogs' traces had to be disentangled; the whole thing was in an inextricable muddle, and the knots and twists in the icy, frozen rope got worse and worse to deal with. Johansen made haste and patched his trousers before breakfast. The south wind had become what on board the *Fram* we should have called a 'mill breeze' (*i.e.*, 19 to 23 feet

in the second); and, with this at our back, we started off in driving snow. Everything went splendidly at first, but then came one pressure-ridge after another, and each one was worse than the last. We had a long halt for dinner at eight or nine in the morning, after having chosen ourselves a sheltered place in the lee of a ridge. We spread out the sleeping-bag, crept down into it with our food, and so tired was I that I went to sleep with it in my hand. I dreamed I was in Norway, and on a visit to some people I had only seen once in my life before. It was Christmas Day, and I was shown into a great empty room, where we were intended to dine. The room was very cold, and I shivered, but there were already some hot dishes steaming on the table, and a beautiful fat goose. How unspeakably did I look forward to that goose! Then some other visitors began to arrive; I could see them through the window, and was just going out to meet them, when I stumbled into deep snow. How it all happened, in the middle of the dining-room floor, I know not. The host laughed in an amused way, and—I woke up and found myself shivering in a sleeping-bag on the drift-ice in the far north. Oh, how miserable I felt! We got up, packed our things silently together, and started off. Not until four o'clock that afternoon did we stop, but everything was dull and cheerless, and it was long before I got over my disappointment. What would I not have given for that dinner, or for one hour in the room, cold as it was!

"The ridges and the lanes which had frozen together again, with rubble on either side, became worse and worse. Making one's way through these new ridges is

desperate work. One cannot use snowshoes, as there is too little snow between the piled-up blocks of ice, and one must wade along without them. It is also impossible to see anything in this thick weather—everything is white—irregularities and holes; and the spaces between the blocks are covered with a thin, deceptive layer of snow, which lets one crashing through into cracks and pitfalls, so that one is lucky to get off without a broken leg. It is necessary to go long distances on ahead in order to find a way; sometimes one must search in one direction, sometimes in another, and then back again to fetch the sledges, with the result that the same ground is gone over many times. Yesterday, when we stopped, I really was done. The worst of it all, though, was that when we finally came to a standstill we had been on the move so long that it was too late to wind up our watches. Johansen's had stopped altogether; mine was ticking, and happily still going, when I wound it up, so I hope that it is all right."

"Wednesday, April 3rd. Got under way yesterday about three in the afternoon. The snow was in first-rate condition after the south-east wind, which continued blowing till late in the day. The ice was tolerably passable, and everything looked more promising; the weather was fine, and we made good progress. But after several level tracts with old humpy ice, came some very uneven ones, intersected by lanes and pressure-ridges as usual. Matters did not grow any better as time went on, and at midnight or soon after we were stopped by some bad ice and a newly frozen lane which would not bear."

It became more and more of a riddle to me that we did not make greater progress northward. I kept on calculating and adding up our marches as we went along, but always with the same result; that is to say, provided only the ice were still, we must be far above the eighty-sixth parallel. It was becoming only too clear to me, however, that the ice was moving southward, and that in its capricious drift, at the mercy of wind and current, we had our worst enemy to combat.

"Friday, April 5th. Began our march at three yesterday morning. The ice, however, was bad, with lanes and ridges, so that our progress was but little. These lanes, with rubble thrown up on each side, are our despair. It is like driving over a tract of rocks, and delays us terribly. First I must go on ahead to find a way, and then get my sledge through; then, perhaps, by way of a change, one falls into the water: yesterday I fell through twice. If I work hard in finding a way and guiding my sledge over rough places, Johansen is no better off, with his two sledges to look after. It is a tough job to get even one of them over the rubble, to say nothing of the ridges; but he is a plucky fellow, and no mistake, and never gives in. Yesterday he fell into the water again in crossing a lane, and got wet up to his knees. I had gone over on my snowshoes shortly before, and did not notice that the ice was weak. He came afterward without snowshoes walking beside one of the sledges, when suddenly the ice gave, and he fell through. Happily he managed to catch hold of the sledge, and the dogs, which did not

stop, pulled him up again. These baths are not an unmixed pleasure now that there is no possibility of drying or changing one's clothes, and one must wear a chain-mail of ice until they thaw and dry on the body, which takes some time in this temperature.

"I begin to think more and more that we ought to turn back before the time we originally fixed. It is probably 350 miles or so to Petermann's Land (in point of fact it was about 450 miles to Cape Fligely); but it will probably take us all we know to get over them. The question resolves itself into this: Ought we not, at any rate, to reach 87° N.? But I doubt whether we can manage it, if the ice does not improve."

"Saturday, April 6th. 2 A.M., −11·4° F. (−24·2° C.). The ice grew worse and worse. Yesterday it brought me to the verge of despair, and when we stopped this morning I had almost decided to turn back. I will go on one day longer, however, to see if the ice is really as bad farther northward as it appears to be from the ridge, 30 feet in height, where we are encamped. We hardly made 4 miles yesterday. Lanes, ridges, and endless rough ice, it looks like an endless moraine of ice-blocks; and this continual lifting of the sledges over every irregularity is enough to tire out giants. Curious this rubble-ice. For the most part it is not so very massive, and seems as if it had been forced up somewhat recently, for it is incompletely covered with thin, loose snow, through which one falls suddenly up to one's middle. And thus it extends mile after mile northward, while every now and then there are old floes, with mounds that have been rounded off by the

action of the sun in the summer—often very massive ice.

"I am rapidly coming to the conclusion that we are not doing any good here. We shall not be able to get much farther north, and it will be slow work indeed if there be much more of this sort of ice toward Franz Josef Land. On the other hand, we should be able to make much better use of our time there, if we should have any over. 8.30 P.M., −29·2° F. (−34° C.)."

"Monday, April 8th. No, the ice grew worse and worse, and we got no way. Ridge after ridge, and nothing but rubble to travel over. We made a start at two o'clock or so this morning, and kept at it as long as we could, lifting the sledges all the time; but it grew too bad at last. I went on a good way ahead on snow-shoes, but saw no reasonable prospect of advance, and from the highest hummocks only the same kind of ice was to be seen. It was a veritable chaos of ice-blocks, stretching as far as the horizon. There is not much sense in keeping on longer; we are sacrificing valuable time and doing little. If there be much more such ice between here and Franz Josef Land we shall, indeed, want all the time we have.

"I therefore determined to stop, and shape our course for Cape Fligely."

"Tuesday, April 9th. Yesterday's was our first march homeward. We expected the same impracticable ice, but, to our amazement, had not gone far before we came on tolerably good ground, which improved steadily, and, with only a few stoppages, we kept at it till this morning. We came upon ridges, to be sure,

but they always allowed themselves to be negotiated pretty easily, and we did well. Started yesterday about two in the afternoon, and kept going till one this morning."

"Wednesday, April 17th. −18·4° F. (−28° C.). Yesterday, without doubt, we did our longest day's march. We began at half-past seven in the morning, and ended at about nine at night, with a couple of hours' rest in the bag at dinner-time. The ice was what I should previously have called anything but good; it was throughout extremely uneven, with pressed-up, rather new ice and older, rounded-off ridges. There were ridges here and there, but progress was possible everywhere, and by lanes, happily, we were not hindered. The snow was rather loose between all the irregularities of the ice; but the dogs hauled alone everywhere, and there is no cause to complain of them. The ice we are now stopping in seems to me to be something like that we had around the *Fram*. We have about got down to the region where she is drifting. I am certain we did 20 miles yesterday, and the distance homeward should now be altogether 368 miles.

"The weather is glorious nowadays, not so cold as to inconvenience one, and continual clear sunshine without any wind to signify. There is remarkable equableness and stagnancy in the atmosphere up here, I think. We have travelled over this ice for upward of a month now, and not once have we been stopped on account of bad weather—the same bright sunshine the whole time, with the exception of a couple of days,

and even then the sun came out. Existence becomes more and more enjoyable; the cold is gone, and we are pressing forward toward land and summer. It is no trial now to turn out in the mornings, with a good day's march before one, and cook, and lie snug and warm in the bag and dream of the happy future when we get home. Home. . . .?"

"Friday, April 26th. I was not a little surprised yesterday morning when I suddenly saw the track of an animal in the snow. It was that of a fox, came about W.S.W. true, and went in an easterly direction. The trail was quite fresh. What in the world was that fox doing up here? There were also unequivocal signs that it had not been entirely without food. Were we in the vicinity of land? Involuntarily I looked round for it, but the weather was thick all day yesterday, and we might have been near it without seeing it. It is just as probable, however, that this fox was following up some bear. In any case, a warm-blooded mammal in the eighty-fifth parallel! We had not gone far when we came across another fox-track; it went in about the same direction as the other, and followed the trend of the lane which had stopped us, and by which we had been obliged to camp. It is incomprehensible what these animals live on up here, but presumably they are able to snap up some crustacean in the open waterways. But why do they leave the coasts? That is what puzzles me most. Can they have gone astray? There seems little probability of that. I am eager to see if we may not come across the trail of a bear to-day. It would be

quite a pleasure, and it would seem as if we were getting nearer inhabited regions again. I have just pricked out our course on the chart according to our bearings, calculating that we have gone 75 miles in the four days since our last observation, and I do not think this can be excessive. According to this, it should not be much more than 150 miles to Petermann's Land, provided it lie about where Payer determined it. I should have taken an observation yesterday, but it was misty.

"At the end of our day, yesterday, we went across many lanes and piled-up ridges; in one of the latter, which appeared to be quite new, immense pieces of fresh-water ice had been pressed up. They were closely intermixed with clay and gravel, the result of infiltration, so that at a distance the blocks looked dark brown, and might easily be taken for stone; in fact, I really thought they were stone. I can only imagine that this ice is river-ice, probably from Siberia. I often saw huge pieces of fresh-water ice of this kind farther north, and even in latitude 86° there was clay on the ice."

" Sunday, April 28th. We made good way yesterday, presumably 20 miles. We began our march about half-past three in the afternoon the day before yesterday, and kept at it till yesterday morning. Land is drawing nigh, and the exciting time beginning, when we may expect to see something on the horizon. Oh, how I am longing for land, for something under one's feet that is not ice and snow; not to speak of something to rest one's eyes on! Another fox-track yester-

day; it went in about the same direction as the previous ones. Later in the day Gulen gave in; it seemed to be a case of complete exhaustion, he could hardly stand on his legs, reeled over, and when we placed him on one of the loads he lay quite still without moving. We had already decided to kill him that day. Poor beast, faithfully he worked for us, good tempered and willing to the end, and then for thanks, when he could do no more, to be killed for provender! He was born on the *Fram* on December 13th, 1893, and, true child of the polar night, never saw aught but ice and snow."

"Monday, April 29th. — 4° F. (— 20° C.). We had not gone far yesterday when we were stopped by open water—a broad pool or lane which lay almost straight across our course. We worked westward alongside it for some distance, until it suddenly began to close violently together at a place where it was comparatively narrow. In a few minutes the ice was towering above us, and we got over by means of the noisy pressure-ridge, which was thundering and crashing under our feet. It was a case of bestirring ourselves and driving dogs and sledges quickly over if we did not wish to get jammed between the rolling blocks of ice. This ridge nearly swallowed up Johansen's snowshoes, which had been left behind for a minute while we got the last sledge over. When at last we got to the other side of the lane the day was far spent, and such work naturally deserved reward in the shape of an extra ration of meat-chocolate.

" Annoying as it is to be stopped in the midst of beautiful flat ice by a lane, when one is longing to get

on, still, undeniably, it is a wonderful feeling to see open water spread out in front of one, and the sun playing on the light ripples caused by the wind. Fancy open water again, and glittering waves, after such a long time! One's thoughts fly back to home and summer. I scanned in vain to see if a seal's head were not visible above the surface, or a bear along the side. The dogs are beginning now to be very much reduced in strength and are difficult to urge on. Barnet was quite done (he was killed this evening), and several of the others are very jaded. Even Baro, my best dog, is beginning to cool in his zeal, to say nothing of Kvik; perhaps I ought to cater a little more generously for them. The wind which was about south-east in the morning subsequently went over to an easterly direction, and I expect, to use Pettersen's customary expression on board for a good south-easter which drove us northward to some purpose, 'a regular devil of a hiding.' I am only surprised the temperature still seems low. I had noticed a thick bank of clouds for a long time along the horizon in the south and south-west, and thought that this must mean land. It now began to grow higher and come nearer us in a suspicious manner. When, after having had dinner, we crept out of the bag, we saw that the sky was entirely clouded over; and that the 'devil of a hiding' had come we felt when we went on.

"I saw another fox-track yesterday; it was almost effaced by the snow, but went in about the same direction as the others. This is the fourth we have come across, and seeing so many of them makes me

begin to believe seriously in the proximity of land. Yes, I expect to see it every minute; perhaps, though, it will be some days yet." [1]

"Saturday, May 4th. Our life, however, was soon embittered by open waterways. By means of a circuitous route, and the expenditure of much valuable time, we at last succeeded in getting over them. Then came long stretches of good ice, and we went cheerfully on our way; by and by, too, the sun peeped out. It is wonderful what such encouragement does for one. A little while ago, when I was ploughing alongside a horrible lane, through rubble and over ridges, without a sign of any means of getting on, I was ready to sink from exhaustion at every step; no pleasure then could compare with that of being able to crawl into the bag; and now, when luck again sheds her smiles on one and progress is before one, all weariness is suddenly dissipated.

"During the night the ice began to be bad in earnest, lane after lane, the one worse than the other, and they were only overcome by deviations and intricate by-ways. It was terrible work, and when the wind increased to a good 'mill-breeze' matters became desperate. This is indeed toil without ceasing; what would I not give to have land, to have a certain way before me, to be able to reckon on a certain day's march and be free from this never-ending anxiety and uncertainty about the lanes! Nobody can tell how much trouble they may yet cause us, and what

[1] In point of fact it was nearly three months (till July 24th) before this marvel happened.

adversities we may have to go through before we reach land; and meanwhile the dogs are diminishing steadily. They haul all they can, poor things, but what good does it do? I am so tired that I stagger on my snowshoes, and when I fall down, only wish to lie there to save myself the trouble of getting up again. But everything changes, and we shall get to land in time.

"At five this morning we came to a broad lane, and as it was almost impossible to get the dogs on any farther, we camped. Once well down in the bag with a pot of savoury-smelling lobscouse in front of one, a feeling of well-being is the result, which neither lanes nor anything else can disturb.

"The ice we have gone through has, on the whole, been flat, with the exception of the newly formed lanes and rubble. These appear, however, for the most part in limited stretches, with extensive flat ice between, as yesterday. All the channels seem in the main to go in the same direction, about straight across our course with a little deflection toward the south-west. They run about north-east to west-south-west (by compass). This morning the temperature had again sunk to +0·1° F. (−17·8° C.), after having been up at +12·2° F. (−11° C.), and therefore I am still in hopes that the water may freeze within a reasonable time. Perhaps it is wrong of us to curse this wind, for on board the *Fram* they are rejoicing that a south-easter has at last sprung up. However, in spite of our maledictions, I am really glad for their sake, although I could wish it deferred till we reach land."

"Wednesday, May 8th. The lanes still appear regularly in certain places, as a rule where the ice is very uneven, and where there are old and new ridges alternately; between these places there are long, flat stretches of ice without lanes. These are often perfectly even, almost like 'inland ice.' The direction of the lanes is, as before, very often athwart our course, or a little more south-westerly. Others, again, seem to go in about the same direction as we do. This ice is extraordinary, it seems to become more and more even as we approach land, instead of the contrary as we expected. If it would only keep so! It is considerably flatter than it was about the *Fram*, it seems to me. There are no really impracticable places, and the irregularities there are seem to be of small dimensions—rubble-ice and so forth—no huge mounds and ridges as we had farther north. Some of the lanes here are narrow and so far new that the water was only covered with brash. This can be deceptive enough; it appears to be even ice, but thrust your staff in, and it goes right through and into the water."

"Tuesday, May 9th. The work of hauling becomes heavier and heavier for the dogs, in proportion as their numbers diminish. The wooden runners, too (the under-runners), do not seem to ride well. I have long thought of taking them off, and to-day really decided to try the sledges without them. In spite of everything the dogs keep a very even pace, with only a halt now and then. Yesterday there were only four dogs for my sledge. One of them, Flint, slipped his harness and ran away, and we did not get hold of him

again before the evening, when he was killed by way of punishment. The ice was all along more uneven than it has been the last few days. In the afternoon the weather thickened, and the wind increased till, at about three o'clock, a regular snowstorm was raging. No way was to be seen, only whiteness everywhere, except in places where the pointed blue ice from the ridges stuck up through the snow-drifts. After a while the ice grew worse, and I went headlong on to ridges and irregularities without even seeing them. I hoped this was only rough ice which we should pass through, but matters did not improve, and we thought there was no sense in going on. Luckily we had just then dropped on a good, sheltered camping-ground; otherwise it would have been difficult enough to find one in such weather, where nothing could be discerned. Meanwhile we are getting southward, and are more and more surprised at not seeing signs of land. We reckon now to have left the eighty-fourth parallel behind us."

"Friday, May 10th. +16·2° F. (−8·8° C.). Our life has many difficulties to combat. Yesterday promised to be a good day, but thick weather hindered our advance. When we crept out of the tent yesterday forenoon it was fine, the sun was shining, the going was unusually good, and the ice appeared to be unusually even. We had managed in the snowstorm of the previous evening to get into a belt of foul ice, which was merely local. Before we started we thought of taking the removable wooden runners off the sledges, but on trying mine beforehand, found that it ran well

as it was. I decided, therefore, to wait a little longer, as I was afraid that removing the wooden runners might weaken the sledge. Johansen, meanwhile, had taken them off the middle sledge, but as we then discovered that one of the birch runners had split right across under one of the uprights, there was nothing for it but to put it on again. It was a pity, though; as the sledge would have run much better on the newly tarred runners than on the scratched under-runners. We made fairly good progress, in spite of there being only thirteen dogs left—four to my sledge, four to the birch sledge, and five to Johansen's. But later in the afternoon the weather thickened rapidly and snow began to fall which prevented our seeing anything before us. The ice, however, was fairly even, and we kept going. We came across a lane, but this we crossed by means of a *détour*. Not long afterward again we got among a number of abominable pressure-ridges, and ran right into high mounds and over steep brinks without seeing them. Wherever one turned there were sudden drops and pitfalls, although everything looked so fair and even under its covering of still-falling snow. As there seemed to be little good in continuing we decided to camp, have our dinner of savoury hot lobscouse, make out our longitude, and then pass the time until it should clear again; and if this did not take place soon, then have a good sleep and be ready to get under way as soon as the weather should permit. After having slept for a couple of hours (it was one o'clock in the morning), I turned out of the tent and was confronted with the same thick, overcast weather,

with only a strip of clear, blue sky down by the horizon in the south-west, so I let Johansen sleep on and reckoned out our longitude, which proved to be 64° 20′ E. We have drifted considerably westward since I last made it out, if my calculations be right. While I was thus occupied I heard a suspicious gnawing noise outside in the direction of the kayaks. I listened, and—quite right—it was the dogs up in Johansen's kayak. I ran out, caught Haren, who was just lying gnawing at the portions of fresh dogs'-flesh destined for to-morrow's consumption, and gave him a good thrashing for his pains. The casing over the opening in the kayak was then properly secured and snowshoes and sticks piled on.

"The weather is still the same, overcast and thick; but the wind has veered round to a more southerly direction and the clear strip of blue sky in the south-west has risen a little higher from the ice-margin—can there be a west wind in prospect? Welcome, indeed, would it be, and longing were the glances I directed toward that blue strip—there lay sunshine and progress; perhaps, even, land was beneath it. I could see the cumulus clouds sailing through the blue atmosphere, and thought if only we were there, only had land under us, then all our troubles would sink into oblivion. But material needs must not be forgotten, and, perhaps, it would be better to get into the bag and have a good sleep while waiting. Many times in the morning did I peep out of the tent, but always saw the same cloudy sky and the same white prospect wherever the eye turned. Down in the west and south-west was always

the same strip of clear, blue sky, only that now it was lower again. When we, at last, turned out in the forenoon, the weather was just the same, and the azure strip on the horizon in the south-west was still there. I think it must have something to do with land, and it gives me hope that this may not be so far off. It is a tougher job than we thought, this gaining land, but we have had many enemies to make headway against—not only foul ice and bad going, but also wind, water, and thick weather—all of them equally obdurate adversaries to overcome."

"Monday, May 13th. +8·6° F. (−13° C.); minimum +6·6° F. (−14·2° C.). This is, indeed, a toilsome existence. The number of the dogs and likewise their hauling powers diminish by degrees, and they are inert and difficult to urge on. The ice grows worse and worse as we approach land, and is, besides, covered with much deeper and looser snow than before. It is particularly difficult to get on in the broken-up ice, where the snow, although it covers up many irregularities, at the same time lets one sink through almost up to one's thighs between the pieces of ice, as soon as one takes one's snowshoes off to help the sledge. It is extremely tiring and shaky on this sort of surface to use one's snowshoes not firmly secured to the feet, but one cannot have them properly fastened on when one has to help the dogs at any moment, or pull and tug at these eternal sledges. I think in snow such as this Indian snowshoes would be preferable, and I only wish I had some. Meanwhile, however, we covered some ground yesterday, and if I reckon 20 miles for

yesterday and to-day together I do not think I shall be very far out. We should thus have only about 50 miles to the 83rd parallel and the land which Payer determined. We are keeping a somewhat southerly course, about due south (true), as this continual east wind is certainly driving us westward, and I do not like the idea of drifting west past land. It is beginning to be tolerably warm inside the bag at night now, and last night I could hardly sleep for heat."

"Sunday, May 19th. We found the lanes about here full of narwhals. When we had just got under way, and were about to cross over the lane we had been stopped by the previous day, I became aware of a breathing noise, just like the blowing of whales. I thought at first it must be from the dogs, but then I heard for certain that the sound came from the lane. I listened. Johansen had heard the noise the whole morning, he said, but thought it was only ice jamming in the distance. No, that sound I knew well enough, I thought, and looked over toward an opening in the ice whence I thought it proceeded. Suddenly I saw a movement which could hardly be falling ice, and—quite right—up came the head of a whale; then came the body: it executed the well-known curve, and disappeared. Then up came another, accompanied by the same sound. There was a whole school of them. I shouted that they were whales, and running to the sledge, had my gun out in a second. Then came the adjusting of a harpoon, and after a little work this was accomplished, and I was ready to start in pursuit. Meanwhile the animals had disappeared from the

opening in the ice where I had first seen them, though I heard their breathing from some openings farther east. I followed the lane in that direction, but did not come within range, although I got rather near them once or twice. They came up in comparatively small openings in the ice, which were to be found along the whole length of the lane. There was every prospect of being able to get a shot at them if we stopped for a day to watch the holes; but we had no time to spare, and could not have taken much with us had we got one, as the sledges were heavy enough already."

"Sunday, May 26th. When the ice is as uneven as it is now the difficulty of making headway is incredible. The snow is loose, and if one takes one's snowshoes off for a moment one sinks in above one's knees. It is impossible to fasten them on securely, as every minute one must help the dogs with the sledges. Added to this, if the weather be thick, as yesterday, one is apt to run into the largest ridges or snow-drifts without seeing them; everything is equally white under its covering of new snow, and the light comes from all directions, so that it throws no shadows. Then one plunges in headlong, and with difficulty can get up and on to one's snowshoes again. This takes place continually, and the longer it lasts the worse it gets. At last one literally staggers on one's snowshoes from fatigue, just as if one were drunk. But we are gaining ground, and that is the chief thing, be one's shins ever so bruised and tender. This manner of progress is particularly injurious to the ankles, on account of the constant unsteadiness and swerving of the snowshoes,

and many a day have mine been much swollen. The dogs, too, are becoming exhausted, which is worse."

"Thursday, May 30th. While we were making our way during the morning between some lanes I suddenly saw a black object come rushing through the air; it was a black guillemot, and it circled round us several times. Not long afterward I heard a curious noise in a south-westerly direction; something like the sound made by a goat's horn when blown on; I heard it many times, and Johansen also remarked it, but I could not make out what it was. An animal, at all events, it must be, as human beings are hardly likely to be near us here.[1] A little while later a fulmar came sailing toward us and flew round and round just over our heads. I got out my gun, but before I had a cartridge in, the bird had gone again. It is beginning to grow lively here; it is cheering to see so much life, and gives one the feeling that one is approaching land and kindlier regions. Later on I saw a seal on the ice."

"Friday, May 31st. Took a meridian altitude to-day, and we should be in 82° 21′ N., and still no glimpse of land; this is becoming more and more of an enigma. What would I not give to set my foot on dry land now; but patience, always patience."

[1] It was undoubtedly from seals, which often utter a sound like a protracted "*ho*."

XI

BY SLEDGE AND KAYAK

"SATURDAY, June 8th. Finished and tried the kayaks yesterday at last, but only by dint of sticking to our work from the evening of the day before yesterday to the evening of yesterday. It is remarkable that we are able to continue working so long at a stretch. If we were at home we should be very tired and hungry, with so many working hours between meals; but here it does not seem more than it should be, although our appetites, certainly, are first-rate, and our sleeping powers good. It does not seem as if we were growing weak or sickening for scurvy just yet. As a matter of fact, so far as I know, we are unusually strong and healthy just now and in full elasticity.

"When we tried the kayaks in a little lane just here we found them considerably leaky in the seams and also in the canvas owing to their rough usage on the way, but it is to be hoped no more so than will be remedied when a little soaking makes the canvas swell out. It will not be agreeable to ferry over lanes and have to put our kayaks dry and leaky on the water. Our provisions may not improbably be reduced to a pulp; but we shall have to put up with that, too, like everything else.

"Weighed the bread yesterday; found we had 26 lbs. 4 ozs. of wheaten bread and 17 lbs. 1 oz. of

aleuronate bread, so, for that matter, we can manage for another thirty-five or forty days, and how far we shall then have got the gods alone know, but some part of the way it must be."

"Sunday, June 9th. We got away from our camping-ground at last yesterday, and we were more than pleased. In spite of the weather, which was as bad as it could be, with a raging snowstorm from the east, we were both glad to begin our wanderings again. It took some time to fix grips under the kayaks, consisting of sack, sleeping-bag, and blankets, and so load the sledges; but eventually we made a start. We got well off the floe we had lived on so long, and did not even have to use the kayaks which we had spent a week in patching for that purpose. The wind had carefully closed the lanes. We found flat ice country, and made good way in spite of the most villainous going, with newly fallen snow, which stuck to one's snowshoes mercilessly, and in which the sledges stood as if fixed to the spot as soon as they stopped. The weather was such that one could not see many hundred feet in front of one, and the snow which accumulated on one's clothes, on the weather-side, wetted one to the skin; but still it was glorious to see ourselves making progress, progress toward our stubborn goal."

"Friday, June 14th. These are moments full of anxiety, when from some hummock one looks doubtingly over the ice, one's thoughts continually reverting to the same question: have we provisions enough to wait for the time when the snow will have melted, and the ice have become slacker, and more intersected

with lanes, so that one can row between the floes? Or is there any probability of our being able to obtain sufficient food, if that which we have should fall short? These are great and important questions which I cannot yet answer for certain. That it will take a long time before all this snow melts away, and advance becomes fairly practicable, is certain; at what time the ice may become slacker, and progress by means of the lanes possible, we cannot say; and up to this we have taken nothing, with the exception of two ivory gulls and a small fish. We did, indeed, see another fish swimming near the surface of the water, but it was no larger than the other. Where we are just now, there seems to be little prospect of capturing anything. I have not seen a single seal the last few days; though yesterday I saw the snowed-down track of a bear. Meanwhile we see ivory gulls continually; but they are still too small to be worth a cartridge; yesterday, however, I saw a large gull, probably *Larus argentatus*."

"Sunday, June 16th. Kaifas is the only dog I have left to help me haul my sledge, and Johansen has Haren and Suggen. We have rations for them for ten days from the two slaughtered dogs, but how far we shall be able to get with them the gods alone know. Not very far, I am afraid. Meanwhile our hitherto somewhat primitive method of hauling had to be improved on. With two dog-harnesses we accordingly made ourselves proper hauling-gear, and therewith all idea of using snowshoes not securely fastened on had to be abandoned. One's feet twisted and slipped and slid off the snowshoes and deep down into the bottomless

snow, which in addition turned to ice under our feet, and with our smooth komager-soles was as slippery as eel-skin to stand on. Then we fastened them on, and where the ice was even it really was possible to drag the sledge, even with only one dog beside one. I saw that given passable snow and passable country to work on, we could make some progress during the day, though as soon as there was the slightest irregularity in the ice the sledges stood perfectly still. It was necessary to strain at the harness all one knew, and then perhaps fail to make the sledge budge an inch. Then back one had to go to it, and after exerting one's strength to the utmost it would finally glide over the obstacle and on toward a new one, where exactly the same process had to be gone through. If it was wished to turn the sledge in the deep snow where it stood embedded, matters were no better; it was only by lifting it bodily that one could get it on at all. So we went on step by step until perhaps we came on a small extent of level ice where we could increase the pace. If, however, we came on lanes and ridges things were worse than ever; one man cannot manage a sledge alone, but two must be put to each sledge. Then when we have followed up the track I have marked out beforehand I have to start off again and find a way between the hummocks. To go direct, hauling the sledge, is not advisable where the ice is uneven, as it only means getting into difficulties and being constrained eventually to turn back. In this way we are grinding along, but it goes without saying that speed and long marches are not the order of the day. But still as it is we make

a little way, and that is better than nothing; it is, besides, the only thing we can do, seeing that it is impossible to crawl into a lair and hibernate for a month or so till progress is possible again."

"Saturday, June 22nd. The kayaks were soon launched and lying side by side on the water well stiffened with the snowshoes under the straps, a thoroughly steady fleet. Then the sledges, with their loads, were run out to them, one forward, one astern. We had been concerned about the dogs and how we should get them to go with us, but they followed the sledges out on to the kayaks and lay down as if they had done nothing else all their lives.

"A seal had come up near us while we were occupied with all this, but I thought to wait before shooting it till the kayaks were ready, and thus be certain of getting it before it sank. Of course it did not show itself again. These seals seem to be enchanted, and as if they were only sent to delay us. So then we set off across the blue waves on our first long voyage. A highly remarkable convoy we must have been, laden as we were with sledges, sacks, guns, and dogs; a tribe of gipsies, Johansen said it was. If anyone had suddenly come upon us then he would hardly have known what to make of the troupe, and certainly would not have taken us for Polar explorers. Paddling between the sledges and the snowshoes which projected far out on either side was not easy work, but we managed to get along, and were soon of the opinion that we should think ourselves lucky could we go on like this the whole day, instead of hauling and wading

through the snow. Our kayaks could hardly have been called watertight, and we had recourse to the pumps several times, but we could easily have reconciled ourselves to that, and only wished we had more open water to travel over. At last we reached the end of the pool; I jumped ashore on the edge of the ice, to pull up the kayaks, and suddenly heard a great splash beside us. It was a seal which had been lying there. Soon afterward I heard a similar splash on the other side, and then for the third time a huge head appeared, blowing and swimming backward and forward, but, alas, only to dive deep under the edge of the ice before we had time to get the guns out. It was a fine, large blue or bearded seal.

"We were quite sure that it had disappeared for good, but no sooner had I got one of the sledges halfway up the side than the immense head came up again close beside the kayaks, blowing and repeating the same manœuvres as before. I looked round for my gun, but could not reach it where it was lying on the kayak. 'Take the gun, Johansen, quick, and blaze away; but quick, look sharp, quick!' In a moment he had thrown the gun to his cheek, and just as the seal was on the point of disappearing under the edge I heard the report. The animal made a little turn, and then lay floating, the blood flowing from its head. I dropped the sledge, seized the harpoon, and quick as lightning threw it deep into the fat back of the seal, which lay quivering on the surface of the water. Meanwhile the sledge, which had been half dragged up on to the ice, slid down again, and the kayaks, with

Johansen and the dogs came adrift. He tried to pull the sledge up on to the kayak, but without success, and so it remained with one end in the water and one on the canoe. It heeled the whole fleet over, and Johansen's kayak canted till one side was in the water; it leaked, moreover, like a sieve, and the water rose in it with alarming rapidity. The cooker which was on the deck fell off, and drifted gaily away before the wind with all its valuable contents, borne high up in the water by the aluminium cap, which happily was watertight. The snowshoes fell off and floated about, and the fleet sank yet deeper and deeper. Meanwhile I stood holding our precious prize, not daring to let go. The whole thing was a scene of the most complete dissolution. Johansen's kayak had by this time heeled over to such an extent that the water reached the open seam on the deck, and the craft filled immediately. I had no choice left but to let go the seal, and drag up the kayak before it sank. This done, heavy as it was and full of water, the seal's turn came next, and this was much worse. We had our work cut out to haul the immense animal hand over hand up on to the ice, but our rejoicings were loud when we at last succeeded, and we almost fell to dancing round it in the excess of our delight. A water-logged kayak and soaked effects we thought nothing of at such a supreme moment. Here was food and fuel for a long time."

"Wednesday, July 10th. To celebrate the good weather we determined to have chocolate for supper; otherwise we live entirely on our catch. We had the chocolate accordingly, and served with raw blubber it

tasted quite excellent. It was the cause of a great disappointment, however, for after having looked forward immoderately to this, now so rare, treat, I managed clumsily to upset my whole cup, so that all the precious contents ran out over the ice. While I was lying waiting for a second cup—it was boiling over the train-oil lamp—Kaifas began to bark outside. Not doubting but that he had seen an animal, I jumped up to hurry off to the look-out hummock to scan the ice. Not a little surprised was I when I poked my head out of the tent-door to see a bear come jogging up to the dogs and begin sniffing at Kaifas. I sprang to the gun, which stood ready in the snow beside the tent, and pulled off the case, the bear meanwhile standing astonished and glaring at me. I sent it a ball through the shoulder and chest, certain that it would drop on the spot. It half staggered over, and then turned round and made off, and before I could extract a new cartridge from my pocket, which was full of everything else, was away among the hummocks. I could not get a shot at it where it was, and set off in pursuit. I had not gone many steps before we saw (Johansen had followed me) two more heads appearing a little way farther on. They belonged to two cubs, which were standing on their hind-legs and looking at their mother, who came reeling toward them, with a trail of blood behind her. Then off they went, all three, over a lane, and a wild chase began over plains and ridges and lanes and every kind of obstacle, but it made no difference to their pace. A wonderful thing this love of sport; it is like setting fire to a fuse. Where at other times it

would be laborious work to get on at all, where one sinks to the knees in the snow, and where one would hesitate before choosing a way over the lane, let only the spark be kindled, and one clears every obstacle without thinking about it. The bear was severely wounded, and dragged her left fore-leg; she did not go fast, but always so fast that I had my work cut out to keep near her. The cubs ran round her in their solicitude, and generally a little way in front, as if to get her to come with them; they little knew what was the matter with her. Suddenly they all three looked back at me as I was crashing after them as fast as I could. I had been within range many times, but the bear had her hind-quarters toward me, and when I fired I meant to be sure of making an end of her, as I only had three cartridges with me, one for each of them. At last, on the top of a huge hummock, I got a sight of her broadside on, and there, too, she dropped. The cubs hurried anxiously up to her when she fell—it made one sorry to see them—they sniffed at and pushed her, and ran round and round, at a loss what to do in their despair. Meanwhile I had put another cartridge in the rifle, and picked off one of the cubs as it was standing on a projection. It fell over the declivity with a growl, and down on to its mother. Still more frightened than before, the other cub hastened to its succour; but, poor thing, what could it do? It no longer knew whither to go, and did not move from the spot. I went right up to it, and, with a spherical ball through the breast, it fell dead beside its mother."

"Tuesday, July 23rd. It is good to be under way

again, and not the least pleasant part about it is our lighter sledges; but then we certainly left a good deal behind at 'Longing Camp.' In addition to a respectable mound of meat and blubber, we left three fine bearskins. Our friend the bag, too, is lying on the top of the bears, a quantity of wood consisting of the boards from under the sledges, the snowshoes and other things, more than half of Blessing's fine medicaments—plaster of Paris bandages, soft steam-sterilized gauze bandages, hygroscopic cotton wadding—to say nothing of a good aluminium glass horizon, rope, our combined frying-pan and melter, half an aluminium cap belonging to the cooker, sheets of German silver, a train-oil lamp of the same, bags, tools, sail-cloth, Finn shoes, our wolfskin fingerless gloves, also woollen ones, a geological hammer, half a shirt, socks, and other sundries, all strewn about in chaotic confusion. Instead of all these we have an augmentation in the form of a sack of dried seal's and bear's flesh and the other half of the aluminium cap full of blubber. We are now thoroughly divested of all superfluous articles, and there is hardly so much as a bit of wood to be had if one should want a stick to slip through the end of the hauling-rope."

XII

LAND AT LAST

"WEDNESDAY, July 24th. At last the marvel has come to pass—land, land, and after we had almost given up our belief in it! After nearly two years, we again see something rising above that never-ending white line on the horizon yonder—a white line which for countless ages has stretched over this lonely sea, and which for millenniums to come shall stretch in the same way. We are leaving it, and leaving no trace behind us; for the track of our little caravan across the endless plains has long ago disappeared. A new life is beginning for us; for the ice it is ever the same."

We thought this land so near that it could not possibly take long to reach it, certainly not longer than till next evening. Johansen was even certain that we should do it the same day, but nevertheless thirteen days were to elapse, occupied in the same monotonous drudgery over the drift-ice.

"Monday, August 5th. We have never had worse ice than yesterday, but we managed to force our way on a little, nevertheless, and two happy incidents marked the day: the first was that Johansen was not eaten up by a bear; and the second, that we saw open water under the glacier edge ashore.

"We set off about seven o'clock yesterday morning and got on to ice as bad as it could be. It was as if

some giant had hurled down enormous blocks pell-mell, and had strewn wet snow in between them with water underneath; and into this we sank above our knees. There were also numbers of deep pools in between the blocks. It was like toiling over hill and dale, up and down over block after block, and ridge after ridge, with deep clefts in between; not a clear space big enough to pitch a tent on even, and thus it went on the whole time. To put a coping-stone to our misery, there was such a mist that we could not see a hundred yards in front of us. After an exhausting march we at last reached a lane where we had to ferry over in the kayaks. After having cleared the side of the lane from young ice and brash I drew my sledge to the edge of the ice, and was holding it to prevent it slipping in, when I heard a scuffle behind me, and Johansen, who had just turned round to pull his sledge flush with mine,[1] cried: 'Take the gun!' I turned round and saw an enormous bear throwing itself on him, and Johansen on his back. I tried to seize my gun, which was in its case on the foredeck, but at the same moment the kayak slipped into the water. My first thought was to throw myself into the water over the kayak and fire from there, but I recognised how risky it would be. I began to pull the kayak, with its heavy cargo, on to the high edge of the ice again as quickly as I could, and

[1] As a rule, we crossed the lanes in this manner: we placed the sledges, with the kayaks on, side by side, lashed them together, stiffened them by running the snowshoes across under the straps, which also steadied them, and then launched them as they were, with the sledges lashed underneath. When across we had only to haul them up on the other side.

was on my knees pulling and tugging to get at my gun. I had no time to look round and see what was going on behind me, when I heard Johansen quietly say: 'You must look sharp if you want to be in time.'

"Look sharp? I should think so! At last I got hold of the butt-end, dragged the gun out, turned round in a sitting posture, and cocked the shot-barrel. The bear was standing not two yards off, ready to make an end of my dog, Kaifas. There was no time to lose in cocking the other barrel, so I gave it a charge of shot behind the ear, and it fell down dead between us.

"The bear must have followed our track like a cat, and, covered by the ice-blocks, have slunk up while we were clearing the ice from the lane and had our backs to him. We could see by the trail how it had crept over a small ridge just behind us under cover of a mound by Johansen's kayak. While the latter, without suspecting anything or looking round, went back and stooped down to pick up the hauling-rope, he suddenly caught sight of an animal crouched up at the end of the kayak, but thought it was Suggen; and before he had time to realise that it was so big he received a cuff on the ear which made him see fireworks, and then, as I mentioned before, over he went on his back. He tried to defend himself as best he could with his fists. With one hand he seized the throat of the animal, and held fast, clenching it with all his might. It was just as the bear was about to bite Johansen in the head that he uttered the memorable words, 'Look sharp!' The bear kept glancing at me continually, speculating, no doubt, as to what I was

going to do; but then caught sight of the dog and turned toward it. Johansen let go as quick as thought, and wriggled himself away, while the bear gave Suggen a cuff which made him howl lustily, just as he does when we thrash him. Then Kaifas got a slap on the nose. Meanwhile Johansen had struggled to his legs, and when I fired had got his gun, which was sticking out of the kayak hole. The only harm done was that the bear had scraped some grime off Johansen's right cheek, so that he has a white stripe on it, and had given him a slight wound in one hand; Kaifas had also got a scratch on his nose."

"Wednesday, August 7th. At last, at last, I stood by the edge of the ice. Before me lay the dark surface of the sea, with floating white floes; far away the glacier-wall rose abruptly from the water; over the whole lay a sombre, foggy light. Joy welled up in our hearts at this sight, and we could not give it expression in words. Behind us lay all our troubles, before us the waterway home. I waved my hat to Johansen, who was a little way behind, and he waved his in answer and shouted, 'Hurrah!' Such an event had to be celebrated in some way, and we did it by having a piece of chocolate each.

"While we were standing there looking at the water the large head of a seal came up, and then disappeared silently; but soon more appeared. It is very reassuring to know that we can procure food at any minute we like.

"Now came the rigging of the kayaks for the voyage. Of course, the better way would have been

to paddle singly, but, with the long, big sledges on the deck, this was not easy, and leave them behind I dared not; we might have good use for them yet. For the time being, therefore, there was nothing else to be done but to lash the two kayaks together side by side in our usual manner, stiffen them out with snowshoes under the straps, and place the sledges athwart them, one before and one behind.

"It was sad to think we could not take our last two dogs with us, but we should probably have no further use for them, and it would not have done to take them with us on the decks of our kayaks. We were sorry to part with them; we had become very fond of these two survivors. Faithful and enduring, they had followed us the whole journey through; and, now that better times had come, they must say farewell to life. Destroy them in the same way as the others, we could not; we sacrificed a cartridge on each of them. I shot Johansen's, and he shot mine.

"So then we were ready to set off. It was a real pleasure to let the kayaks dance over the water and hear the little waves plashing against the sides. For two years we had not seen such a surface of water before us. We had not gone far before we found that the wind was so good that we ought to make use of it, and so we rigged up a sail on our fleet. We glided easily before the wind in toward the land we had so longed for all these many months. What a change after having forced one's way inch by inch and foot by foot on ice! The mist had hidden the land from us for a while, but now it parted, and we saw the glacier

rising straight in front of us. At the same moment the sun burst forth, and a more beautiful morning I can hardly remember. We were soon underneath the glacier, and had to lower our sail and paddle westward along the wall of ice, which was from 50 to 60 feet in height, and on which a landing was impossible. It seemed as if there must be little movement in this glacier; the water had eaten its way deep underneath it at the foot, and there was no noise of falling fragments or the cracking of crevasses to be heard, as there generally is with large glaciers. It was also quite even on the top, and no crevasses were to be seen. Up the entire height of the wall there was stratification, which was unusually marked. We soon discovered that a tidal current was running westward along the wall of the glacier with great rapidity, and took advantage of it to make good progress. To find a camping-ground, however, was not easy, and at last we were reduced to taking up our abode on a drifting floe. It was glorious, though, to go to rest in the certainty that we should not wake to drudgery in the drift-ice."

"Wednesday, August 14th. In the evening we at last reached the islands we had been steering for for the last few days, and for the first time for two years had bare land under foot. The delight of the feeling of being able to jump from block to block of granite [1] is indescribable, and the delight was not lessened when in a little sheltered corner among the stones we found

[1] I have called it granite in my diary, but it was in reality a very coarse-grained basalt. The specimens I took have unfortunately been lost.

moss and flowers, beautiful poppies, *Saxifraga nivalis*, and a Stellaria. It goes without saying that the Norwegian flag had to wave over this our first bare land, and a banquet was prepared. Our petroleum, meanwhile, had given out several days previously, and we had to contrive another lamp in which train-oil could be used. The smoking hot lobscouse, made of pemmican and the last of our potatoes, was delicious, and we sat inside the tent and kicked the bare grit under us to our hearts' content."

"Wednesday, August 24th. The vicissitudes of this life will never come to an end. When I wrote last I was full of hope and courage; and here we are stopped by stress of weather for four days and three nights, with the ice packed as tight as it can be against the coast. We see nothing but piled-up ridges, hummocks, and broken ice in all directions. Courage is still here, but hope, the hope of soon being home—that was relinquished a long time ago, and before us lies the certainty of a long, dark winter in these surroundings.

"As we were paddling along through some small bits of ice my kayak suddenly received a violent shock from underneath. I looked round in amazement as I had not noticed any large piece of ice hereabouts. There was nothing of the kind to be seen either, but worse enemies were about. No sooner had I glanced down than I saw a huge walrus cleaving through the water astern, and it suddenly came up, raised itself and stood on end just before Johansen, who was following in my wake. Afraid lest the animal should have its tusks through the deck of his craft the next minute, he backed

as hard as he could and felt for his gun, which he had down in the kayak. I was not long either in pulling my gun out of its cover. The animal crashed snorting into the water again, however, dived under Johansen's kayak, and came up just behind him. Johansen, thinking he had had enough of such a neighbour, scrambled incontinently on to the floe nearest him. After having waited a while, with my gun ready for the walrus to come up close by me, I followed his example. I very nearly came in for the cold bath which the walrus had omitted to give me, for the edge of the ice gave way just as I set my foot on it, and the kayak drifted off with me standing upright in it, and trying to balance it as best I could, in order not to capsize. If the walrus had reappeared at that moment I should certainly have received it in its own element. Finally, I succeeded in getting up on to the ice, and for a long time afterward the walrus swam round and round our floe, where we made the best of the situation by having dinner. Sometimes it was near Johansen's kayak, sometimes near mine. We could see how it darted about in the water under the kayaks, and it had evidently the greatest desire to attack us again. We thought of giving it a ball to get rid of it, but had no great wish to part with a cartridge, and besides it only showed us its nose and forehead, which are not exactly the most vital spots to aim at when one's object is to kill with one shot. It was a great ox-walrus."

After having written my journal for the 24th August, I went out to look for a better and more sheltered place, as the wind had changed, and now blew straight

into the tent. I hoped, too, that this land-wind might open up the ice, and I therefore first set off to see whether any sign of slackening was to be discovered at the edge of the shore ice; but the floes lay packed together as solidly as ever. I found, however, a capital place for pitching the tent, and we were busy moving thither when we suddenly discovered that the ice had split off to the landward, and already there was a broad channel. We certainly wanted the ice to open up, but not on our landward side; and now it was a question of getting across on to the shore ice again at any price, so as not to drift out to sea with the pack. But the wind had risen to a stiff breeze, and it seemed more than doubtful whether we could manage to pull up against it, even for so short a distance as across the channel. This was rapidly growing broader and broader. We had, however, to make an attempt, and, therefore, set off along the edge toward a spot farther east, which we thought would give us a little more shelter for launching our kayaks. But it was no easy matter. It was still blowing hard, and the sea ran high. In addition to this, there were a number of loose floes beyond, and these were in constant motion, so that we had to be on the alert to prevent the kayaks from being crushed between them. After some futile attempts we at length got afloat, but only to discover that the wind and the waves were too strong: we should scarcely be able to make any progress against them. Our only resource, therefore, was to sail if this were practicable. We went alongside an ice-promontory, lashed the kayaks together, raised the mast, and again

put to sea. We soon had our single sail hoisted, and to our unspeakable satisfaction we now found that we got along capitally. At last we should be able to bid farewell to the ice, where we had been compelled to abandon our hope of reaching home that year.

We sailed steadily and well the whole day, and now at last had to pass the difficult cape; but it was evening before we left it behind, and now the wind dropped so much that the whole double sail had to be hoisted again, and even then progress was slow. We kept on, however, during the night, along the shore, determined to make as much use of the wind as possible. We passed a low promontory covered by a gently sloping glacier; around it lay a number of islands, which must, we thought, have held the ice fast. A little farther on we came under some high basaltic cliffs, and here the wind dropped completely. As it was also hazy, and we could discern land and islands both to right and left of us, so that we did not know in what direction to steer, we put in here, drew the kayaks up on shore, pitched the tent, and cooked ourselves a good meal of warm food, which we relished greatly, from the consciousness of having done a good day's work.

We hoped to go on the following day, but found, to our disappointment, that the way was blocked; the wind had again driven the ice in. We must remain for the present where we were; but in that case we would make ourselves as comfortable as possible. The first thing to be done was to seek for a warm, well-sheltered place for the tent, but this was not to be found. There was nothing for it but to get something

built up of stone. We quarried stone in the *débris* at the bottom of the cliff, and got together as much as we could. The only quarrying-implement we had was a runner that had been cut off a hand-sledge; but our two hands were what we had to use most. We worked away during the night; what we had at first only intended to be a shelter from the wind grew little by little into four walls; and we now kept at it until we had finished a small hut. It was nothing very wonderful, Heaven knows, not long enough for a man of my height to lie straight inside—I had to stick my feet out at the door—and just broad enough to admit of our lying side by side, and leave room for the cooking apparatus. It was worst, however, with regard to the height. There was room to lie down, but to sit up decently straight was an impossibility for me. The roof was made of our thin and fragile silk tent, spread over snowshoes and bamboo rods. We closed the doorway with our coats, and the walls were so loosely put together that we could see daylight between the stones on all sides. We afterward called it the den, and a dreadful den it was, too; but we were none the less proud of our handiwork. It would not blow down, at any rate, even though the wind did blow right through it. When we had got our bearskin in as a couch and lay warm and comfortable in our bag, while a good potful of meat bubbled over the train-oil lamp, we thought existence a pleasure; and the fact of there being so much smoke that our eyes became red and the tears streamed down our cheeks could not destroy our feeling of content.

Meanwhile time passed. The sun sank lower and lower, until on the 15th October we saw it for the last time above the ridge to the south; the days grew rapidly darker, and then began our third polar night.

The entries in my journal for this time are exceedingly meagre; there are sometimes weeks when there is nothing but the most necessary meteorological observations with remarks. The chief reason for this is that our life was so monotonous that there was nothing to write about. The same thoughts came and went day after day; there was no more variety in them than in our conversation. The very emptiness of the journal really gives the best representation of our life during the nine months we lived there.

XIII

THE JOURNEY SOUTHWARD

At last, on Tuesday, May 19th [1896], we were ready for the start. Our sledges stood loaded and lashed. The last thing we did was to photograph our hut both outside and inside, and to leave in it a short report of our journey.

After having had so little exercise all the winter we were not much disposed for walking, and thought our sledges with the loaded kayaks heavy to pull along. In order not to do too much at first, but make our joints supple before we began to exert ourselves seriously, we walked for only a few hours the first day, and then, well satisfied, pitched our camp. There was such a wonderfully happy feeling in knowing that we were, at last, on the move, and that we were actually going homeward.

The following day (Wednesday, May 20th) we also did only a short day's march. We were making for the promontory to the south-west of us that we had been looking at all the winter. Judging from the sky, it was on the farther side of this headland that we should find open water. We were very eager to see how the land lay ahead of this point. If we were north of Cape Lofley, the land must begin to trend to the south-east. If, on the other hand, the trend of the coast was to the south-west, then this must be a new land farther west, and near Gillies Land.

The next day (Thursday, May 21st) we reached this promontory, and pitched our camp there. All through the winter we had called it the Cape of Good Hope, as we expected to find different conditions there, which would facilitate our advance; and our hopes were not to be disappointed. From the crest of the mountain I saw open water not far off to the south, and also two new snow-lands, one large one in front (in the south, 40° W.), and one not much smaller in the west (S. 85° W.). It was completely covered with glacier, and looked like an evenly vaulted shield. I could not see clearly how the coast ran on account of a headland to the southward. But it did not seem to trend to the south-east, so that we could not be near Cape Lofley. We now hoped that we might be able to launch our kayaks the very next day, and that we should then make rapid progress in a south-westerly direction; but in this we were disappointed. The next day there was a snowstorm, and we had to stay where we were.

On Saturday, May 23rd, the weather was still bad, but we went ahead a little way to examine our road onward. The point to be found out was whether we ought at once to make for the open water, that lay on the other side of an island to the west, or whether we ought to travel southward upon the shore ice along the land. We came to a headland consisting of uncommonly marked columnar basalt, which on account of its peculiar form we called the 'Castle.' We here saw that the land stretched farther in a southerly direction, and that the open water went the same way, only separated from the land by a belt of shore ice.

As the latter appeared to be full of cracks we decided to go over to the island in the west, and put to sea as quickly as possible. We therefore returned and made all ready. Our preparations consisted first and foremost in carefully caulking the seams of our kayaks by melting stearine over them, and then restowing the cargo so as to leave room for us to sit in them. The following day (Sunday, May 24th) we moved on westward toward the island, and as the wind was easterly, and we were able to employ sails on the sledges, we got on pretty quickly across the flat ice. As we approached the island, however, a storm blew up from the south-west, and after the sledges had upset several times we were obliged to take down our sails. The sky became overcast, the air grew misty, and we worked our way against the strong wind in toward the land. The thing was to get to land as quickly as possible, as we might evidently expect bad weather. But now the ice became treacherous. As we approached the land there were a number of cracks in every direction, and these were covered with a layer of snow so that it was difficult to see them. While Johansen was busy lashing the sail and mast securely to the deck of his kayak, so that the wind should not carry them away, I went on ahead as fast as I could to look for a camping-ground, but all of a sudden the ice sank beneath me, and I lay in the water in a broad crack which had been concealed by the snow. I tried to get out again, but with my snowshoes firmly fastened it was not possible to get them through all the rubble of snow and lumps of ice that had fallen into the water on the top of them.

In addition to this I was fastened to the sledge by the harness so that I could not turn round. Fortunately, in the act of falling, I had dug my pike-staff into the ice on the opposite side of the crack, and holding myself up by its aid and the one arm that I had got above the edge of the ice, I lay waiting patiently for Johansen to come and pull me out. I was sure he must have seen me fall in, but could not turn enough to look back. When I thought a long time had passed, and I felt the staff giving way and the water creeping farther and farther up my body, I began to call out, but received no answer. I shouted louder for help, and at last heard a "Hullo!" far behind. After some little time, when the water was up to my chest, and it would not have been long before I was right under, Johansen came up, and I was pulled out. He had been so occupied with his sledge that he had not noticed that I was in the water until the last time I called. This experience had the effect of making me careful in the future not to go on such deceitful ice with my snowshoes firmly attached.

During the succeeding days the storm raged, and we could not move. The entry for Tuesday, May 26th, is as follows: "We have lain weatherbound yesterday and to-day beneath the glacier-cliff on the north side of this island. The snow is so wet that it will be difficult to get anywhere; but it is to be hoped that the open channel outside is not far off, and we shall get on quickly there when once the storm abates. We shall then make up for this long delay." But our stay was to be longer than we thought. On Thursday, May 28th,

the journal says: "We were up on the island yesterday, and saw open sea to the south, but are still lying weatherbound as before. I only moved our tent-place a little on account of the cracks; the ice threatened to open just beneath us. There are a great many walruses here. When we go out over the ice, the fellows follow us and come up in the cracks beside us. We can often hear them grunting as they go, and butting at the ice under our feet."

That day, however, the storm so far abated that we were able to move southward along the east side of the island. On the way we passed a large open pool in the shore ice between this island and the land. It must have been shallow here, for there was a strong current, which was probably the cause of this pool being kept open. We passed two or three herds of walruses lying on the ice near it. Concerning these, I wrote that evening: "I went up to one herd of about nine to take photographs of the animals. I went close up to them behind a little mound, and they did not see me; but directly I rose up not more than 20 feet away from them a female with her young one plunged into the water through a hole close by. I could not get the others to stir, however much I shouted. Johansen now joined me, and, although he threw lumps of snow and ice at them, they would not move; they only struck their tusks into the lumps, and snuffed at them, while I kept on photographing them. When I went right up to them most of them at last got up and floundered away toward the hole, and one plunged in; but the others stopped and composed themselves to sleep

again. Soon, too, the one that had first disappeared came back and crept on to the ice. The two that lay nearest to me never stirred at all; they raised their heads a little once or twice, looked contemptuously at me as I stood three paces from them, laid their heads down, and went to sleep again. They barely moved when I pricked them in the snout with my pike-staff, but I was able to get a pretty good photograph of them. I thought I now had enough, but before I went I gave the nearest one a parting poke in the snout with my pike-staff; it got right up, grunted discontentedly, looked in astonishment at me with its great, round eyes, and then quietly began to scratch the back of its head, and I got another photograph, whereupon it again lay quietly down. When we went on they all immediately settled themselves again, and were lying like immovable masses of flesh when we finally rounded the promontory, and lost sight of them."

The ice over which we were now travelling was remarkably different from that which we had had farther north, near our winter-hut; it was considerably thinner, and covered, too, with very thick snow, so that it was not in a good condition for travelling over. When, therefore, the following day (Tuesday, June 9th) it also began to stick in lumps to our snowshoes and the sledge-runners, they both worked rather heavily; but the wind was still favourable, and we sailed along well notwithstanding. As we were sailing full speed, flying before the wind, and had almost reached the land, Johansen and his sledge suddenly sank down, and it was with difficulty that he managed

to back himself and his things against the wind and on to the firmer ice. As I was rushing along I saw that the snow in front of me had a suspiciously wet colour, and my snowshoes began to cut through; but fortunately I still had time to luff before any further misfortune occurred. We had to take down our sails, and make a long *détour* westward, before we could continue our sail. Next day, also, the snow clogged, but the wind had freshened, and we sailed better than ever.

On Friday, June 12th, we started again at 4 A.M. with sails on our sledges. There had been frost, so the snow was in much better condition again. It had been very windy in the night, too, so we hoped for a good day. On the preceding day it had cleared up so that we could at last see distinctly the lands around. We now discovered that we must steer in a more westerly direction than we had done during the preceding days, in order to reach the south point of the land to the west. The lands to the east disappeared eastward, so we had said good-bye to them the day before. We now saw, too, that there was a broad sound in the land to the west, and that it was one entire land, as we had taken it to be. At 6 A.M. we stopped to rest a little, and on going up on to a hummock to take a longitude observation I saw the water not far off. From a higher piece of glacier-ice we could see it better. It extended toward the promontory to the south-west. Even though the wind had become a little westerly now we still hoped to be able to sail along the edge of the ice, and determined to go to the water by the shortest way. We were quickly at the edge of the ice, and once more saw the blue water

spread out before us. We soon had our kayaks lashed together, and the sail up, and put to sea. Nor were our hopes disappointed; we sailed well all day long. At times the wind was so strong that we cut through the water, and the waves washed unpleasantly over our kayaks; but we got on, and we had to put up with being a little wet.

In the evening we put in to the edge of the ice, so as to stretch our legs a little; they were stiff with sitting in the kayak all day, and we wanted to get a little view over the water to the west, by ascending a hummock. As we went ashore the question arose as to how we should moor our precious vessel. "Take one of the braces," said Johansen; he was standing on the ice. "But is it strong enough?" "Yes," he answered; "I have used it as a halyard on my sledge-sail all the time." "Oh, well, it doesn't require much to hold these light kayaks," said I, a little ashamed of having been so timid, and I moored them with the halyard, which was a strap cut from a raw walrus-hide. We had been on the ice a little while, moving up and down close to the kayaks. The wind had dropped considerably, and seemed to be more westerly, making it doubtful whether we could make use of it any longer, and we went up on to a hummock close by to ascertain this better. As we stood there Johansen suddenly cried: "I say! the kayaks are adrift!" We ran down as hard as we could. They were already a little way out, and were drifting quickly off; the painter had given way. "Here, take my watch!" I said to Johansen, giving it to him; and as quickly as

possible I threw off some clothing, so as to be able to swim more easily: I did not dare to take everything off, as I might so easily get cramp. I sprang into the water, but the wind was off the ice, and the light kayaks, with their high rigging, gave it a good hold. They were already well out, and were drifting rapidly. The water was icy cold, it was hard work swimming with clothes on, and the kayaks drifted farther and farther, often quicker than I could swim. It seemed more than doubtful whether I could manage it. But all our hope was drifting there; all we possessed was on board; we had not even a knife with us; and whether I got cramp and sank here, or turned back without the kayaks, it would come to pretty much the same thing; so I exerted myself to the utmost. When I got tired I turned over, and swam on my back, and then I could see Johansen walking restlessly up and down on the ice. Poor lad! He could not stand still, and thought it dreadful not to be able to do anything. He had not much hope that I could do it, but it would not improve matters in the least if he threw himself into the water too. He said afterward that these were the worst moments he had ever lived through. But when I turned over again, and saw that I was nearer the kayaks, my courage rose, and I redoubled my exertions. I felt, however, that my limbs were gradually stiffening and losing all feeling, and I knew that in a short time I should not be able to move them. But there was not far to go now; if I could only hold out a little longer we should be saved—and I went on. The strokes became more and more feeble, but the distance became shorter

and shorter, and I began to think I should reach the kayaks. At last I was able to stretch out my hand to the snowshoe, which lay across the sterns; I grasped it, pulled myself in to the edge of the kayak—and we were saved. I tried to pull myself up, but the whole of my body was so stiff with cold, that this was an impossibility. For a moment I thought that after all it was too late; I was to get so far, but not be able to get in. After a little, however, I managed to swing one leg up on to the edge of the sledge which lay on the deck, and in this way managed to tumble up. There I sat, but so stiff with cold, that I had difficulty in paddling. Nor was it easy to paddle in the double vessel, where I first had to take one or two strokes on one side, and then step into the other kayak to take a few strokes on the other side. If I had been able to separate them, and row in one while I towed the other, it would have been easy enough; but I could not undertake that piece of work, for I should have been stiff before it was done; the thing to be done was to keep warm by rowing as hard as I could. The cold had robbed my whole body of feeling, but when the gusts of wind came they seemed to go right through me as I stood there in my thin, wet, woollen shirt. I shivered, my teeth chattered, and I was numb almost all over; but I could still use the paddle, and I should get warm when I got back on to the ice again. Two auks were lying close to the bow, and the thought of having auk for supper was too tempting; we were in want of food now. I got hold of my gun, and shot them with one discharge. Johansen said afterward

that he started at the report, thinking some accident had happened, and could not understand what I was about out there, but when he saw me paddle and pick up two birds he thought I had gone out of my mind. At last I managed to reach the edge of the ice, but the current had driven me a long way from our landing-place. Johansen came along the edge of the ice, jumped into the kayak beside me, and we soon got back to our place. I was undeniably a good deal exhausted, and could barely manage to crawl on land. I could scarcely stand, and while I shook and trembled all over Johansen had to pull off the wet things I had on, put on the few dry ones I still had in reserve, and spread the sleeping-bag out upon the ice. I packed myself well into it, and he covered me with the sail and everything he could find to keep out the cold air. There I lay shivering for a long time, but gradually the warmth began to return to my body. For some time longer, however, my feet had no more feeling in them than icicles, for they had been partly naked in the water. While Johansen put up the tent and prepared supper, consisting of my two auks, I fell asleep. He let me sleep quietly, and when I awoke, supper had been ready for some time, and stood simmering over the fire. Auk and hot soup soon effaced the last traces of my swim. During the night my clothes were hung out to dry, and the next day were all nearly dry again.

At 1.30 the next morning (Monday, June 15th) we proceeded on our way in beautifully calm weather. As walruses swarmed on all sides we did not much like paddling singly, and for some distance lashed the

kayaks together; for we knew how obtrusive these gentlemen could be. The day before they had come pretty near, popped up close beside my kayak, and several times followed us closely a long distance, but without doing us any harm. I was inclined to think it was curiosity, and that they were not really dangerous; but Johansen was not so sure of this. He thought we had had experience to the contrary, and urged that at any rate caution could do no harm. All day long we saw herds, that often followed us a long way, pressing in round the kayaks. We kept close to the edge of the ice; and if any came too near we put in, if possible, on an ice-foot.[1] We paddled past one large herd on the ice, and could hear them a long way off lowing like cows.

"Tuesday, June 23rd. It was past midday on June 17th when I turned out to prepare breakfast. I had been down to the edge of the ice to fetch salt water, had made up the fire, cut up the meat, and put it in the pot, and had already taken off one boot preparatory to creeping into the bag again, when I saw that the mist over the land had risen a little since the preceding day. I thought it would be as well to take the opportunity of having a look round, so I put on my boot again, and went up on to a hummock near to look at the land beyond. A gentle breeze came from the land, bearing with it a confused noise of thousands of bird-voices from the mountain there. As I listened

[1] The ice-foot is the part of a floe which often projects into the water under the surface. It is formed through the thawing of the upper part of the ice in the summer-time by the warmer surface-layer of the sea.

to these sounds of life and movement, watched flocks of auks flying to and fro above my head, and as my eye followed the line of coast, stopping at the dark, naked cliffs, glancing at the cold, icy plains and glaciers in a land which I believed to be unseen by any human eye and untrodden by any human foot, reposing in arctic majesty behind its mantle of mist—a sound suddenly reached my ear, so like the barking of a dog, that I started. It was only a couple of barks, but it could not be anything else. I strained my ears, but heard no more, only the same bubbling noise of thousands of birds. I must have been mistaken, after all; it was only birds I had heard; and again my eye passed from sound to island in the west. Then the barking came again, first single barks, then full cry; there was one deep bark, and one sharper; there was no longer any room for doubt. At that moment, I remembered having heard two reports the day before, which I thought sounded like shots, but I had explained them away as noises in the ice. I now shouted to Johansen that I heard dogs farther inland. Johansen started up from the bag where he lay sleeping, and tumbled out of the tent. 'Dogs?' He could not quite take it in, but had to get up and listen with his own ears, while I got breakfast ready. He very much doubted the possibility of such a thing, yet fancied once or twice that he heard something which might be taken for the barking of dogs; but then it was drowned again in the bird-noises, and, everything considered, he thought that what I had heard was nothing more than that. I said he might believe what he liked, but I

meant to set off as quickly as possible, and was impatient to get breakfast swallowed. Before starting, I went up once more to listen, and look out a road across the uneven ice to the land. But there was not a sound like the barking of dogs, only noisy auks, harsh-toned little auks, and screaming kittiwakes. Was it these, after all, that I had heard? I set off in doubt.

"It was with a strange mixture of feelings that I made my way in toward land among the numerous hummocks and inequalities. Suddenly I thought I heard a shout from a human voice, a strange voice, the first for three years. How my heart beat, and the blood rushed to my brain, as I ran up on to a hummock, and hallooed with all the strength of my lungs. Behind that one human voice in the midst of the icy desert, this one message from life, stood home and she who was waiting there; and I saw nothing else as I made my way between bergs and ice-ridges. Soon I heard another shout, and saw, too, from an ice-ridge, a dark form moving among the hummocks farther in. It was a dog; but farther off came another figure, and that was a man. Who was it? Was it Jackson or one of his companions, or was it perhaps a fellow-countryman? We approached one another quickly; I waved my hat: he did the same. I heard him speak to the dog, and I listened. It was English, and as I drew nearer I thought I recognized Mr Jackson, whom I remembered once to have seen.

"I raised my hat; we extended a hand to one another, with a hearty 'How do you do?' Above us a

roof of mist, shutting out the world around, beneath our feet the rugged, packed drift-ice, and in the background a glimpse of the land, all ice, glacier, and mist. On one side the civilized European in an English check suit and high rubber water-boots, well shaved, well groomed, bringing with him a perfume of scented soap, perceptible to the wild man's sharpened senses; on the other side the wild man, clad in dirty rags, black with oil and soot, with long, uncombed hair and shaggy beard, black with smoke, with a face in which the natural fair complexion could not possibly be discerned through the thick layer of fat and soot which a winter's endeavours with warm water, moss, rags, and at last a knife had sought in vain to remove. No one suspected who he was or whence he came.

"Once more he seized my hand, and shook it heartily. I could not have been welcomed more warmly; that handshake was more than a mere form. In his hospitable English manner, he said at once that he had 'plenty of room' for us, and that he was expecting his ship every day. By 'plenty of room' I discovered afterward that he meant that there were still a few square feet on the floor of their hut that were not occupied at night by himself and his sleeping companions. But 'heart-room makes house-room,' and of the former there was no lack. As soon as I could get a word in I asked how things were getting on at home, and he was able to give me the welcome intelligence that my wife and child had both been in the best of health when he left two years ago. We soon met several men: Mr Armitage, the second in

command, Mr Child, the photographer, and the doctor, Mr Koetlitz. As they approached Jackson gave them a sign, and let them understand who I was; and I was again welcomed heartily. We met yet others: the botanist, Mr Fisher, Mr Burgess, and the Finn Blomqvist (his real name was Melenius). Fisher has since told me that he at once thought it must be me when he saw a man out on the ice; but he quite gave up that idea when he met me, for he had seen me described as a fair man, and here was a dark man, with black hair and beard. When they were all there Jackson said that I had reached 86° 15′ N. lat., and from seven powerful lungs I was given a triple British cheer, that echoed among the hummocks. Jackson immediately sent his men off to fetch sledges and go out to Johansen, while we went on toward the house which I now thought I could see on the shore. Jackson now told me that he had letters for me from home, and that both last spring and this he had had them with him when he went north, on the chance of our meeting. We now found that in March he must have been at no great distance south of our winter hut, but had to turn there, as he was stopped by open water, the same open water over which we had seen the dark atmosphere all the winter. Only when we came up nearly to the houses did he inquire more particularly about the *Fram* and our drifting, and I briefly told him our story. He told me afterward that from the time we met he had believed that the ship had been destroyed, and that we two were the only survivors of the expedition. He thought he had seen a sad expression in my face

when he first asked about the ship, and was afraid of touching on the subject again. Indeed, he had even quietly warned his men not to ask. It was only through a chance remark of mine that he found out his mistake, and began to inquire more particularly about the *Fram* and the others.

"Then we arrived at the house, a low Russian timber hut, lying on a flat terrace, an old shore-line, beneath the mountain, and 50 feet above the sea. It was surrounded by a stable and four circular tent-houses, in which stores were kept. We entered a comfortable, warm nest in the midst of these desolate, wintry surroundings, the roof and walls covered with green cloth. On the walls hung photographs, etchings, photo-lithographs, and shelves everywhere, containing books and instruments; under the roof clothes and shoes hung drying, and from the little stove in the middle of the floor of this cosy room the warm coal fire shone out a hospitable welcome. A strange feeling came over me as I seated myself in a comfortable chair in these unwonted surroundings. At one stroke of changing fate, all responsibility, all troubles, were swept away from a mind that had been oppressed by them during three long years; I was in a safe haven, in the midst of the ice, and the longings of three years were lulled in the golden sunshine of the dawning day. My duty was done: my task was ended; now I could rest, only rest and wait.

"A carefully soldered tin packet was handed to me; it contained letters from Norway. It was almost with a trembling hand and a beating heart that I opened it;

and there were tidings, only good tidings, from home. A delightful feeling of peace settled upon the soul.

"Then dinner was served, and how nice it was to have bread, butter, milk, sugar, coffee, and everything that a year had taught us to do without and yet to long for! But the height of comfort was reached when we were able to throw off our dirty rags, have a warm bath, and get rid of as much dirt as was possible in one bout; but we only succeeded in becoming anything like clean after several days and many attempts. Then clean, soft clothes from head to foot, hair cut, and the shaggy beard shaved off, and the transformation from savage to European was complete, and even more sudden than in the reverse direction. How delightfully comfortable it was to be able to put on one's clothes without being made greasy, but most of all to be able to move without feeling them stick to the body with every movement.

"It was not very long before Johansen and the others followed, with the kayaks and our things. Johansen related how these warm-hearted Englishmen had given him and the Norwegian flag a hearty cheer when they came up and saw it waving beside a dirty woollen shirt on a bamboo rod which he had put up by my orders, so that I could find my way back to him. On the way hither they had not allowed him to touch the sledges, he had only to walk beside them like a passenger, and he said that, of all the ways in which we had travelled over drift-ice, this was without comparison the most comfortable. His reception in the hut was scarcely less hospitable than mine, and he soon went through the same transformation that I had undergone."

It was undeniably a sudden transition to come straight from our long, inert life in our winter lair, where one's scientific interests found little enough stimulus, right into the midst of this scientific oasis, where there was plenty of opportunity for work, where books and all necessary apparatus were at hand, and where one could employ one's leisure moments in discussing with men of similar tastes all sorts of scientific questions connected with the Arctic zone. I felt like a piece of parched soil drinking in rain after a drought of a whole year.

"Sunday, July 26th. I was awakened this morning by feeling some one pull my legs. It was Jackson, who, with beaming countenance, announced that the *Windward* had come. I jumped up and looked out of the window. There she was, just beyond the edge of the ice, steaming slowly in to find an anchorage. Wonderful to see a ship again! How high the rigging seemed, and the hull! It was like an island. There would be tidings on board from the great world far beyond."

As I drew near the vessel I was greeted with ringing cheers by the whole crew gathered on the deck, where I was heartily received by the excellent Captain Brown, commander of the *Windward*, by Dr Bruce, and Mr Wilton, who were both to winter with Jackson, and by the ship's company. We went below into the roomy, snug cabin, and all kinds of news were eagerly swallowed by listening ears, while an excellent breakfast with fresh potatoes and other delicacies glided down past a palate which needed less than that to satisfy it.

In less than a week Captain Brown was ready to start for home, and only awaited Jackson's letters and telegrams. They took a few more days, and then everything was ready. In the meantime, however, a gale had sprung up, blowing on the shore, the *Windward's* moorings at the edge of the ice had given way, she was set adrift and obliged to seek a haven farther in, where, however, it was so shallow that there was only one or two feet of water beneath her keel. Meanwhile, the wind drove the ice in, the navigable water closed in all round it outside, and the floes were continually drawing nearer. For a time the situation looked anything but pleasant; but fortunately the ice did not reach the vessel, and she thus escaped being screwed out of the water. After a delay of a couple of days on this account the vessel got out again.

And now we were to bid adieu to this last station on our route where we had met with such a cordial and hospitable reception. A feverish energy came over the little colony. Those who were going home had to make themselves ready for the voyage, and those who were to remain had to bring their letters and other things on board. This, however, was sufficiently difficult. The vessel lay waiting impatiently and incessantly sounding her steam-whistle; and a quantity of loose ice had packed itself together outside the edge of the shore ice, so that it was not easy to move. At last, however, those who were to remain had gone on shore, and we who were going home were all on board —that is to say, Mr Fisher, the botanist, Mr Child, the chemist, Mr Burgess, and the Finn, Blomqvist, of the

English expedition, along with Johansen and myself. As the sun burst through the clouds above Cape Flora we waved our hats, and sent our last cheer as a farewell to the six men standing like a little dark spot on the floe in that great icy solitude; and under full sail and steam we set out on the 7th August, with a fair wind, over the undulating surface of the ocean, toward the south.

It was an indescribably delightful feeling once more to gaze over the blue expanse, as we paced up and down the deck, and were day by day carried nearer home. One morning, as we stood looking over the sea, our gaze was arrested by something; what could that be away on the horizon? We ran on to the bridge and looked through the glass. The first sail. Fancy being once more in waters where other people went to and fro! But it was far away; we could not go to it. Then we saw more, and later in the day four great monsters ahead. They were British men-of-war, probably on their way home after having been at Vadsö for the eclipse of the sun, which was to have taken place on August 9th. Later in the evening (August 12th) I saw something dark ahead, low down on the horizon. What was it? I saw it on the starboard bow, stretching low and even toward the south. I looked again and again. It was land, it was Norway! I stood as if turned to stone, and gazed and gazed out into the night at this same dark line, and a fear began to tremble in my breast. What were the tidings that awaited me there?

Then, silently and unobserved, the *Windward* glided, with colours flying, into Vardö Haven. Before the

anchor was dropped I was in a boat with Johansen on our way to the telegraph station. We put in at the quay, but there was still so much of our former piratical appearance left that no one recognized us; they scarcely looked at us, and the only being that took any notice of the returned wanderers was an intelligent cow, which stopped in the middle of a narrow street, and stared at us in astonishment, as we tried to pass. That cow was so delightfully summery to look at that I felt inclined to go up and pat her; I felt now that I really was in Norway. When I got to the telegraph station I laid a huge bundle down on the counter, and said that it consisted of telegrams that I should like to have sent as soon as possible. There were nearly a hundred of them, one or two rather long, of about a thousand words each.

The head of the telegraph office looked hard at me, and quietly took up the bundle; but as his eye fell upon the signature of the telegram that lay on the top his face suddenly changed, he wheeled sharp round, and went over to the lady clerk who was sitting at the table. When he again turned and came toward me his face was radiant, and he bade me a hearty welcome. The telegrams should be dispatched as quickly as possible, he said; but it would take several days and nights to get them all through. And then the instrument began to tick and tick, and to send through the country and the world the news that two members of the Norwegian Polar Expedition had returned safe and sound, and that I expected the *Fram* home in the course of the autumn.

It was clear that we must stop there that evening, and we sat the whole afternoon talking and talking without a pause. But meanwhile the whole town had learnt the names of its newly arrived guests, and when we looked out of the window the street was full of people, and from all the flagstaffs over the town, and from all the masts in the harbour, the Norwegian flag waved in the evening sunshine. And then came telegrams in torrents, all of them bringing good news. Now all our troubles were over. Only the arrival of the *Fram* was wanting to complete things; but we were quite at ease about her; she would soon turn up.

On August 21st Johansen and I arrived at Hammerfest. Everywhere on the way people had greeted us with flowers and flags, and now, as we sailed into its harbour, the northernmost town in Norway was in festal array from the sea to the highest hill-top, and thousands of people were afoot. To my surprise, I also met here my old friend, Sir George Baden-Powell, whose fine yacht, the *Otaria*, was in the harbour.

In the evening, my wife arrived, and my secretary, Christofersen; and after having attended a brilliant *fête* given that night by the town of Hammerfest in our honour we took up our quarters on board the *Otaria*, where the days now glided past so smoothly that we scarcely noticed the lapse of time. Telegrams of congratulation, and testimonies of goodwill and hearty rejoicing, arrived in an unbroken stream from all quarters of the world.

But the *Fram*? I had telegraphed confidently that I expected her home this year; but why had she not

already arrived? I began more and more to think over this, and the more I calculated all chances and possibilities, the more firmly was I convinced that she ought to be out of the ice by this time, if nothing had gone amiss. It was strange that she was not already here, and I thought with horror that if the autumn should pass without news of her, the coming winter and summer would be anything but pleasant.

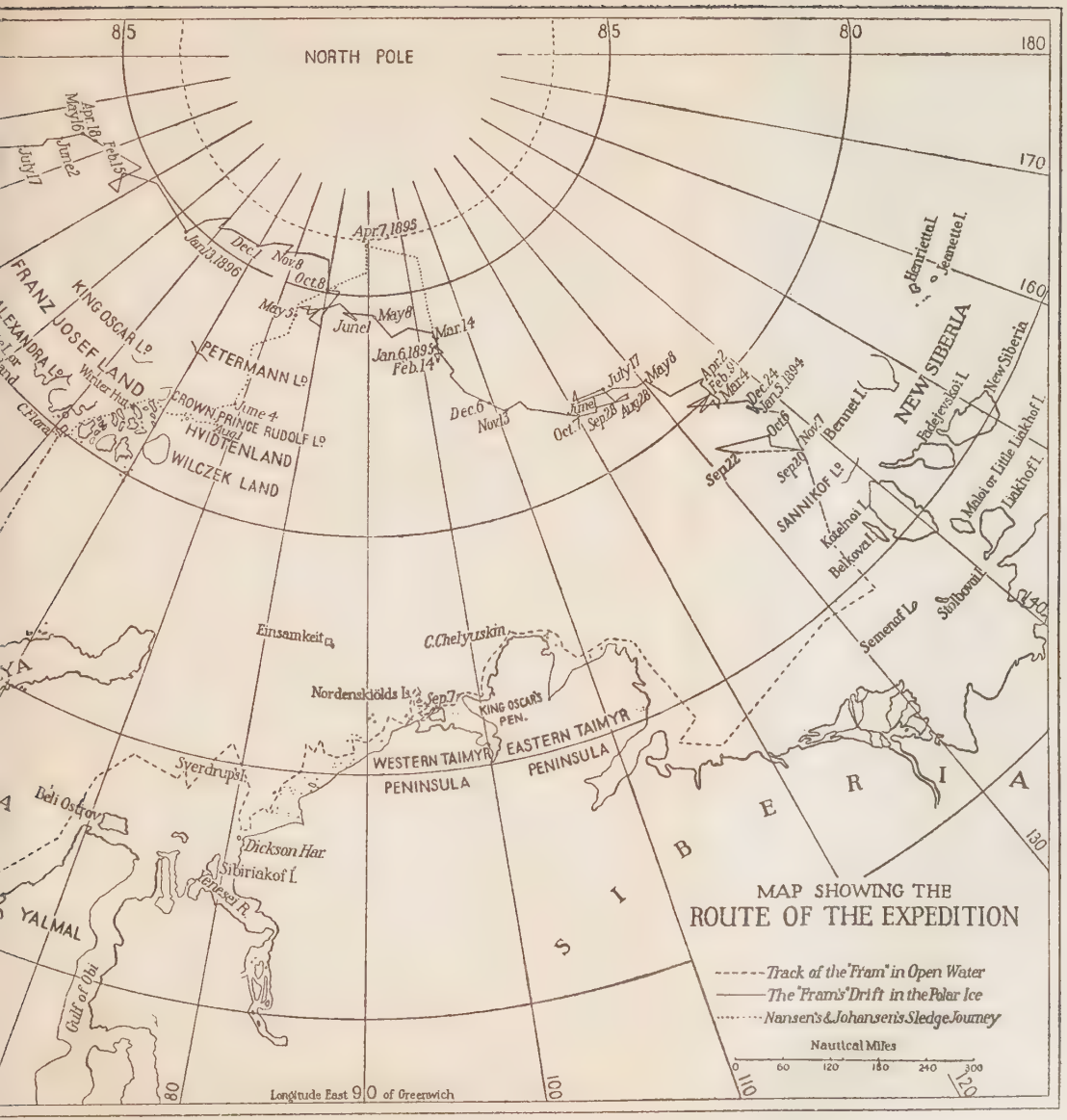
Just as I had turned out on the morning of August 20th, Sir George knocked at my door and said there was a man there who insisted on speaking to me. I answered that I wasn't dressed yet, but that I would come immediately. "Oh, that doesn't matter," said he, "come as you are." I was a little surprised at all this urgency, and asked what it was all about. He said he did not know, but it was evidently something pressing. I nevertheless put on my clothes, and then went out into the saloon. There stood a gentleman with a telegram in his hand, who introduced himself as the head of the telegraph office, and said that he had a telegram to deliver to me which he thought would interest me, so he had come with it himself. Something that would interest me? There was only one thing left in the world that could really interest me. With trembling hands I tore open the telegram:

Fridtjof Nansen.

Fram arrived in good condition. All well on board. Shall start at once for Tromsö. Welcome home.

Otto Sverdrup.

70
75
80
Danes I.
10
SPITZBERGEN
King Charles
Hope I.
20
Hammerfest
Tromsö
Sigerwo
NORWAY
Voyage home in the Windward
July 21. 1893
Vardö
30
NOVAYA
40
RUSSIA
50
60


NORTH POLE
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85
80
180
170
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100
90
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FRANZ JOSEF LAND
KING OSCAR Lº
PETERMANN Lº
CROWN PRINCE RUDOLF Lº
HVIDTENLAND
WILCZEK LAND
ALEXANDRA Lº
Winter Hut
C. Flora
NEW SIBERIA
Henrietta I.
Jeannette I.
New Siberia
Fadeyevskoi I.
Bennet I.
SANNIKOF Lº
Kotelnoi I.
Belkovai I.
Malai or Little Liakhof I.
Liakhof I.
Stolbovai I.
Semenof Lº
Einsamkeit
C. Chelyuskin
Nordenskiölds I.
KING OSCAR'S PEN.
WESTERN TAIMYR PENINSULA
EASTERN TAIMYR PENINSULA
SIBERIA
Sverdrup's I.
Deli Ostrov
Dickson Har
Sibiriakof I.
Yenisei R.
YALMAL
Gulf of Obi
Apr.18
May16
June2
July17
Feb.15
Jan.13.1896
Dec.1
Nov.8
Oct.8
Apr.7.1895
May 5
June1
May8
Mar.14
Jan.6.1895
Feb.14
Dec.6
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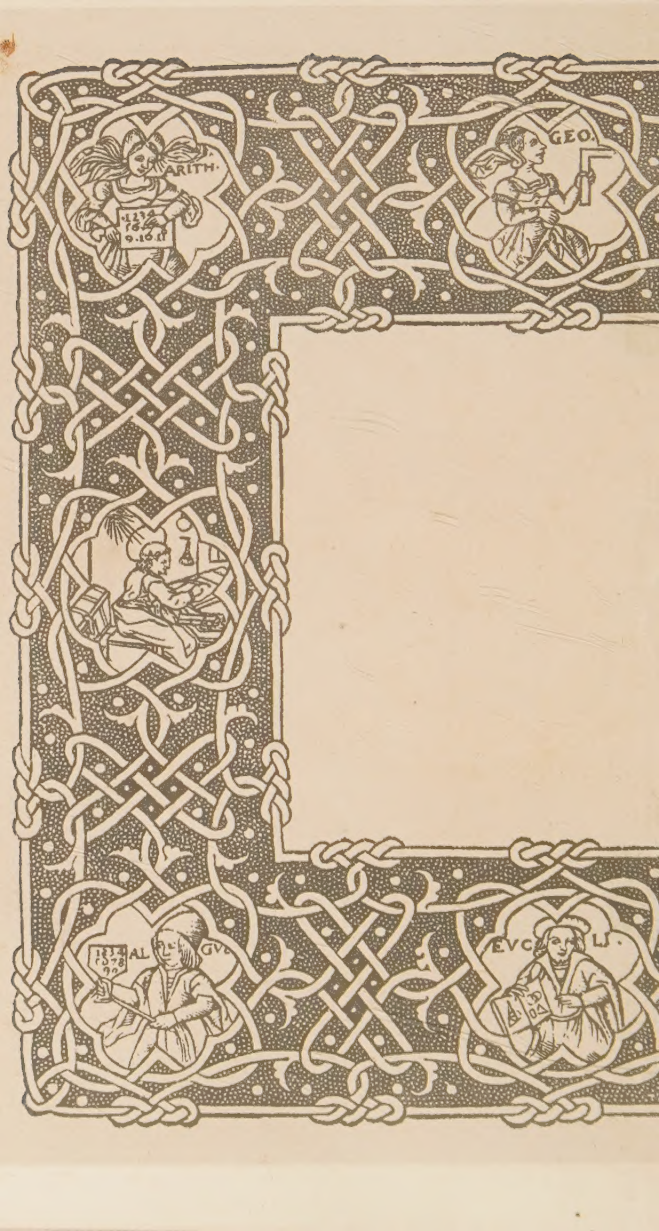
June4
July17
June1
Oct.1
Sep.28
Aug.28
May8
Apr.2
Feb.81
Mar.4
Dec.24
Jan.5.1894
Oct.6
Nov.7
Sep.22
Sep.20
Sep.7
Longitude East 90 of Greenwich
MAP SHOWING THE
ROUTE OF THE EXPEDITION
Track of the "Fram" in Open Water
The "Fram's" Drift in the Polar Ice
Nansen's & Johansen's Sledge Journey
Nautical Miles
0 60 120 180 240 300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